GOLD PAN

Alumni Magazine

WINTER 2020

UNEXPECTED PATHS

Dr. Aaron Curtis celebrating as the world's first ice-climbing robot completes its first step



FRONT COVER

Dr. Aaron Curtis (M.S. Geochemistry, 2012, and Ph.D. E&ES Geochemistry, 2016) in Mothra Cave in the crater of Mt. St. Helens. The world's first ice climbing robot just took its first steps - cause for jubilation. See details of his adventures on page 23.

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BACK COVER

Top row (I to r) 49ers fun: Mechanical Engineering parade float; Etscorn & Wells at Mini Baja race; "Techie of the Year" Bob Eveleth at the Cap. **Bottom row (I to r) Alumni Tours**: Rafting on the Chama and Caverns of Sonora

A WORD FROM THE PRESIDENT



Greetings, New Mexico Tech Alumni

Our university has had an exciting and eventful 2019, as New Mexico Tech moved to greater heights in its academic and research endeavors. I am looking forward to continuing this trajectory with another productive year in 2020. Over my three and one-half years as president, I have come to truly understand first-hand how an education at NMT launches Techies into the most amazing and impressive careers.

In this issue, you will read about some of the "Unexpected Paths" that Techies took to get to NMT and those they have taken after graduating from our university. The Gold Pan staff has put together an illuminating collection of stories for you in this edition. The NMT experience is an effective springboard for Techies to leverage their education to new professional heights. As you read these inspiring stories, I hope you feel the same sense of pride that I feel in being associated with a university that is well-regarded around the world.

I learned about some of these unexpected paths on a special trip this fall. Along with some key administrators and staffers, I had the pleasure of meeting alumni in Indonesia and Malaysia. There, we renewed our MOU with the Institute of Technology in Bandung, Indonesia, which will continue to pave the way for collaborations between faculty and students. We also met with officials of Pertamina University, a fledgling institute in Jakarta, to discuss a potential future cooperative agreement. That visit also led to interactions with more NMT alumni in Jakarta.

In Kuala Lumpur, Malaysia, we also hosted a reception for 36 alumni and their guests. The three-hour event was one of the best-attended receptions of the year. You can read more about our trip in this edition of Gold Pan.

Having the opportunity to meet so many Techies around the world emphasizes the point of "Unexpected Paths." No matter where you go, you'll run into fellow members of the NMT family doing amazing things.

We've made great strides over the past couple of years to expand our NMT family around the globe. We have well-established exchange programs with universities in China, which have brought hundreds of students to NMT over the past decade. We have started new collaborations with universities in Mexico and Latin American countries. We have also initiated working agreements with three universities in Ghana.

Elsewhere in this issue, you can find highlights from our signature Fall events – the President's Golf Tournament and 49ers Celebration. Homecoming in October continues to expand and offer a variety of activities for alumni, students and local residents.

I hope you see all the positive activity on our campus and will consider supporting the President's Golf Tournament – or donating to the department or scholarship fund of your choice. Your generosity helps current and future Techies fulfill their goals of becoming professional engineers and scientists like so many of you!

Warm Regards,

Dr. Stephen G. Wells

President, New Mexico Tech

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LETTER TO THE EDITOR

Dear Ms. Foster.

I just finished reading through the Gold Pan, Summer 2019 issue. I was particularly interested in the article on Dr. Jim Corey. I enjoyed the article but was very disappointed to see that my father's name was misspelled.

My father, **Dr. Howard E. Sylvester**, was Head of Humanities for approximately 25 of his over 30 years at New Mexico Tech and hired most of the Humanities professors mentioned in the article, including Dr. Corey. My father had a mantra that he used in his department, in his classrooms and with his children....proofread, proofread, proofread. He felt anything published reflected greatly on its author and the institution itself.

I enjoyed the article but was very disappointed to see that my father's name was misspelled. I know that few people at Tech now remember my father, but I would like to believe that many of those who attended Tech do.

We enjoy receiving Gold Pan (my husband is Michael Crowley, B.S. Petroleum Engineering, 1972) and commend you and the staff for providing the publication.

I cannot fully express the pride I have in my father however, and the misspelling really bothers me. He was a dedicated professor whose life revolved around New Mexico Tech and who took great joy in educating Tech students. To see his name misspelled in one of the rare times his name appears in a Tech publication these days took me aback and saddened me. I had to express those feelings.

Sincerely,

Shirley (Sylvester) Crowley

Editor's Note: We thank Mrs. Crowley for the correction and for her memories, and extend our sincere apologies for the unintentional misspelling of her father's name. Dr. Sylvester was greatly appreciated and is fondly remembered at New Mexico Tech.

MALAYSIA, INDONESIA AND JAKARTA



Above (I to r): Colleen Foster, President Stephen Wells, Bur Maras (B.S. Petroleum Engineering, 1965), Dr. Van Romero, Nourradine Benalil (PRRC)



Alumni at the Malaysian reception

President Stephen Wells, Dr. Van Romero (VP of Research), Nourradine Benalil (PRRC), and Colleen Foster (Director of Advancement) spent time with NMT alumni (see below photos) while in Malaysia in December, 2019...

See page 3 for more details from President Wells about this successful and enjoyable trip.



Above (I to r): Prof. Ir. Pudji Permadi, M.Sc., Ph.D. and Ir. Ucok W.R. Siagain, Ph.D. (both from Institut Teknologi Bandung) with Nourradine Benalil (PRRC)

NMT DELEGATES VISIT THREE UNIVERSITIES

In August 2019, NMT President Dr. Stephen Wells, PRRC Director Dr. Robert Balch, Mineral Engineering Department Chair Dr. Navid Mojtabai, and Petroleum and Natural Gas Engineering Department Chair Dr. Tan Nguyen visited three universities in Ghana: University of Mines and Technology (UMaT), Kwame Nkrumah University of Science and Technology (KNUST), and University of Energy and Natural Resources (UENR).

The trip was organized by alum *Dr. William Ampomah* (M.S. 2013 and Ph.D. 2016, Petroleum Engineering). The purpose of the trip was to initiate collaborations between the three universities and NMT. The agreements cover major collaborations between the institutions, establishing exchange student and 2+3 joint or dual degrees.



(Above) Planting a tree at UENR campus, a university tradition with esteemed visitors.

Currently the Mineral Engineering and Petroleum and Natural Gas Engineering departments are the main NMT programs initiating activities with their counterpart Ghanaian departments;

(Above) Signing MOU at KNUST

however, the agreements apply to all programs.

The team also had the chance to do some sightseeing and meet several NMT alumni who currently are in Ghana.



(Right) MOU signing at UENR



(Left) The NMT team taking a break at a historic site.

Left to right: Mrs. Ampomah, Dr. William Ampomah, Dr. Tan Nguyen, Dr. Navid Mojtabai, Dr. Stephen Wells, and Dr. Robert Balch.

2019 FOUNDER'S CLUB BANQUET



Dr. Stephen Wells honored the late Holm Bursum, III (*left*) with the **2019 President's Medal** at the Founder's Club Banquet on August 24, 2019 at the Garcia Opera House in Socorro, NM. The President's Medal is conferred on an individual whose impact has profoundly enhanced the university.

A native son and lifelong partner of New Mexico Tech, Holm Bursum, III's philosophy was always in the best interests of Socorro and local scholars. He was a true pillar of the community and New Mexico Tech.

His son, Holm "Cuatro" Bursum, IV, accepted the award from President Wells on behalf of his father and family (below left).

Before the banquet, some Mechanical Engineering students (below center) and faculty (below right) showed off their research.



(Left to right): Michael Bursum, Holm "Cuatro" Bursum, IV, Dr. Stephen Wells, Julia Bursum-Arnold, and Elizabeth "Sissy" (Bursum) Spencer

2019 PRESIDENT'S GOLF TOURNAMENT



The sky was blue, light breezes kept everyone cool, and a good time was had by all raising funds for the President's Tuition Assistance Scholarship. *Clockwise from above:*

Start each tournament with energy and enthusiasm!

Dr. Julie Ford (Professor, Mechanical Engineering) shows 'em how it's done

Hitting for the hills (beyond the trees)

EMRTC's Cliff Cup is only for golfers who love heights







100TH ANNIVERSARY 2019 49ERS: STEAMPUNK





2019 49er Parade Winners

NMT Students:

- 1. NMT Bike Club
- 2. Graduate Student Association
- 3. Socorro Search & Rescue

NMT Faculty/Staff:

- 1. Mechanical Engineering Department & Office for Advancement
- 2. Student University Relations
- 3. Property Office
- 3. EMRTC

Community Small:

- 1. Socorro Old Car Club
- 2. William Torres
- 3. Courtesy Loans

Community Large:

- 1. Socorro Community Theater
- 2. Socorro Animal Shelter
- 3. Sun Loan

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2019 49ers Heritage Event Slide Rule Winner

Eric Binnedyk, NMT student, triumphed at the the 2nd Annual Slide Rule competition, hosted by the NMT Mathematics Department This was Eric's second year competing.





2019 49ers Heritage Event Mining Winners

Swedish Saw Team Competition

- 1. Bon Durica & John Durica (alumni)
- 2. Ryan Moreli & Johnathan Garcia (students)
- 3. Matthew Bauman & Evan Bush (students)

Jackleg Drilling

- 1. Bon Durica (alum)
- 2. Evan Bush (student)
- 3. Matthew Bauman (student)

Single Strike Drilling

- 1. James Hogan (student)
- 2. Graham Hogan (guest)
- 3. Bon Durica (alum)

Gold Panning

- 1. Vyncynt Gonzales (guest)
- 2. James Hogan (student)
- 3. Catalina Vanejos (student)





President Stephen Wells officially unveiled the new university logo design during the annual 49ers Celebration.

In late 2018, the NMT community cast over 1,500 votes, electing *Miners* as the official mascot for the university by an overwhelming margin.

2019 ALUMNI AWARDS



RISING STAR

Presented to an alum who graduated in the past 5 to 10 years, is excelling in his/her profession, and is an emerging leader in his/her field.

Dr. Graham Walsh (M.S. Materials Engineering, 2002, and Ph.D. Materials Engineering, 2010) worked at EMRTC as a student; he was instrumental in bringing Myth-busters to NMT. In 2016 he and his wife started their own business, Explosives Test Center, LLC; one sign of its success is that it has hired other NMT graduates.



TECHIE OF THE YEAR

Presented to an alum who has demonstrated service and loyalty to New Mexico Tech over many years. It is the highest honor awarded by NMT's Office for Advancement and Alumni Relations.

Robert "Bob' Eveleth (B.S. Mining Engineering, 1969) has spent more than 35 years researching, rescuing, collecting, identifying, and publishing obscure facts and historic details of NM mining and NMT history.

Unofficial historian and "memory of New Mexico's earth," he has helped to expand the legacy of New Mexico, mining, and history.



PHILANTHROPIST OF THE YEAR

This award recognizes an alum for their long-time distinguished philanthropic contributions to and activities supporting New Mexico Tech.

Ken Fagan (B.S. Petroleum Engineering, 1961) and his wife Marge have been generous supporters of the New Mexico Tech Petroleum Engineering Department and its students, for many years.

The Fagan Scholarship is awarded to multiple undergraduate Petroleum Engineering students each year.





For questions contact sandi.lucero@nmt.edu or 575-835-5618



FACULTY SPOTLIGHT Taylor Dotson, Ph.D.

BY LISA MAJKOWSKI

We are pleased to feature Dr. Taylor Dotson, Assistant Professor in the Communications, Liberal Arts, and Social Sciences (CLASS) Department.

Dr. Dotson - you're a Tech alum. What path brought you to New Mexico Tech?

I was born in Cortez, Co, and went to high school in Michigan. I was funneled into STEM by my high school counselor and my parents. My father does underground construction in the mining industry, so I applied to Tech along with other schools. I was accepted to Tech, as was my twin brother Keenan (who also is a Tech alum). The decision was made much easier by Tech's tuition being significantly less than the University of Michigan's.

What was your major?

I started off in Physics, and then switched to Math. I did the five-year B.S./M.S. program in Math and received a M.S. in Industrial Mathematics in 2009, which is an applied math option. I did undergraduate (with Dr. Dave Burleigh) and graduate research (a Sandia Fellowship working with Dr. John McCoy) connected to Materials Engineering.

Where did your path lead after Tech?

I did an internship through the DAAD (a German academic exchange program). I ended up in Ludwigshafen am Rhein, Germany with BASF, doing a statistical machine learning project. Coincidentally, I met my wife, Rachel, there, who was doing a biochemistry internship with same company (she came from the University of Alberta).

I had hoped to get a job teaching math, but no one was hiring after the 2008 crash. I did some online searching for teaching jobs and found opportunities for people from the US to go to Taiwan to teach English. I did this for 4 months; it was interesting – I had never lived in a place that was that densely populated before.

As the teaching hiring freezes continued, I saw a tiny blurb online for Fort Belknap College, a tribal college



Taylor Dotson and friend circa 2008.

on a reservation in Montana. I had to fly from Taiwan to Montana in December on my own dime. I broke my contract to do so – which was a big risk job-wise. I got the job and taught remedial college math (high school level algebra) and some computer courses. I did this for almost two years. Teaching there opened my eyes to issues faced by students living in an extremely economically depressed area.

Rachel was back in Canada and we took turns making the 8.5-hour drive to see each other. We had to decide how were we going to be able to be in the same place and the answer was to go back to school, which made me give serious thought to what I really wanted as a meaningful future. I was encouraged to go into STEM by teachers and counselors because I was good at it, not because it was my passion. I had a chance to read broadly while I was in Montana and what I really loved was history, politics, and social problems. So now I had to figure out how to get into that from a degree in mathematics.

I applied to Arizona State University, Rensselaer Polytechnic Institute (RPI), and the University of Montana. RPI's Science and Technology Studies program committed to funding me (I had nearly aced

FACULTY SPOTLIGHT Taylor Dotson, Ph.D.

the GRE, so that helped). One of the challenges was figuring out how write a research paper in the philosophy of technology for the application, and doing so without ever having taken a course in it. Plus, I had never been a good essay writer as an undergraduate. I had taken some economics and psychology classes at New Mexico Tech, and I got letters of reference from Carlos Ulibarri and Dave Wheelock. This convinced my eventual Ph.D. advisor that I was not totally unprepared for the program. Rachel got into the Biology program at the Albany School of Pharmacy (Albany is ten miles from RPI).

The program was complete shellshock at first – way more difficult than any year at Tech. I was astonished to find that in the Social Sciences, you read the assignment and do your homework before class, not after. I had to stay up to 2 am to write one of my essays the first week after a classmate informed me of this. The expectations were that students would read one book or five journal articles per week per class, on top of writing essays, teaching, and conducting research. In addition, I needed to catch up on my social theory. I ended up doing my doctorate degree in five years (Master's course work and the Ph.D.).



The Dotson family enjoying together time.

What brought you back to Tech?

It was pure serendipity. I went on the job market just when a position in Science and Technology Studies opened at Tech. I wanted to teach at a smaller college in a small town. at a school like Tech. I applied all over the country, but when I saw the position at Tech, I knew it was meant to be. I was very happy when I was able to tell Rachel, "Okay, we're moving to Socorro!" I was fortunate to have an accelerated pathway for tenure once I got here and finished a year early; tenure in my field is based on publishing a book. I wrote my dissertation more as a book than a traditional dissertation, which enabled me to get that publication out two years into my tenure process.

What do you like best about Tech?

The size of the university and of Socorro – I like feeling that I am part of a community. I have moved over two dozen times in my life and the place where I have lived longest is Socorro. At Tech, I get to know a lot of students and run into them at school and in town. A small faculty and staff population helps you to be able to know people. I also understand what it's like to be a Tech student. I can tailor the class to where the students are and what their needs are. I can speak more to how Social Science and Humanities matter to STEM. Eventually I would like to see students develop over a longer period of time, which is difficult to do when not teaching in a degree program; I currently only cover general education classes.

Rugby is also a large part of what I like about Tech. When I interviewed for the position in the CLASS Department, the first person I called was Dave Wheelock to go out for a drink. I played rugby and was involved with the club the whole time that I was a student (despite being injury prone) which helped keep me at Tech, and knowing Dave gave me balance. I'm still involved with Rugby and I'm still injury prone (I recently broke my finger playing in Santa

I'm now the club's faculty advisor, I've been on every hiring committee for new coaches, I do the match

FACULTY SPOTLIGHT Taylor Dotson, Ph.D.

write ups and communicate with alumni, I sell jerseys, I am the commentator at matches, and I learn the name of every player.

How are your foreign language skills?

I spent a semester in Quebec and still have some knowledge of French, especially my listening skills. I



Taylor Dotson, rugby player (center)

learned Spanish from Dr. Lara Martinez at Tech, but it is pretty rusty now. I never really learned all that much Chinese during my stay in Taiwan. German is my best foreign language (coincidentally, Rachel's extended family is German).

What do you like to do for fun?

As a family, we enjoy hiking, camping, and skiing. We like to hang out with friends at The Cap. I play bass and have occasionally played gigs, including with Steve Simpson.

Where do you hope your path leads next?

I'm hoping to land a sabbatical opportunity in Germany, publish my second book and write a third. And while I do enjoy teaching social science gen ed courses, I hope to be able to more substantially contribute to a degree program in the near future.

For more information about Taylor, check out his NMT website: https://nmt.edu/academics/class/faculty/tdotson.php, and his book, Technically Together: Reconstructing Community in a Networked World. 2017. Cambridge, MA: MIT Press..

SCHOLARSHIP SHOUTOUT

Donna Kuklinski (B.S., Mathematics, 1983) passed away in October 2016, in Albuquerque, N.M. While pursuing her degree at New Mexico Tech, Donna made many friends and participated in various Tech activities (both curricular and extracurricular). After NMT, she went to the University of Wyoming, earning a Master's in Mathematics in 1989 and completing two years of atmospheric science studies.

Her interests and passions included fantasy (literature and games), music, Albuquerque festivals, and cats (her favorite quote was *God created the cat so man might caress the tiger*).

Friends Brian Davis and Johann Lindig started the Donna Kuklinski Scholarship in 2017 to honor her memory by supporting future women math majors at Tech.

To donate to this scholarship fund, call the Office for Advancement at 575-835-5616 or visit the NMT Giving Page (https://www.nmt.edu/, then click on Give at the top).

Your gifts further New Mexico Tech's academic and research goals while letting you support your special interests.

Visit our **Giving Page** to see the many ways you can contribute to Tech and the students: www.nmt.edu - click **Give** option at top right



Paul Arthur Barrientos

Music Lecturer, CLASS/Humanities Department

arrientos, Paul Arthur passed away October 5, 2019. He was a musician, a teacher, a friend and colleague, a thundering and resonant voice from the crowd, a lovable curmudgeon, and by many accounts, a tireless advocate and mentor for those who feel as if they just don't "fit the mold." He helped many find their voices, both in music and in life. He will be deeply missed.

Paul was born October 31, 1947, to parents Arthur and Margaret Jean Barrientos. He spent his formative years living near St. Louis, MO, where he developed his lifelong passion for baseball and, specifically, for the St. Louis Cardinals. According to his brother John, Paul enjoyed performing for as long as he could remember and performed at the St. Louis Municipal Opera Theatre.

At some point during this time, Paul was in a serious automobile accident, which would leave him with a very slight limp for the rest of his life. Paul's friends remember him saying that it was possibly during his recovery that he started thinking about pursuing his musical interests more seriously.

Sometime in the very early 1980s, Paul moved to Boston, where he met his longtime artist friend, Ron Rundo. While in Boston, Paul took on an assortment of jobs teaching voice and leading church choirs and was a featured soloist for the Boston Pops Orchestra.

While living there, Paul commuted to New York City to study under a voice instructor. In 1983 or 1984, Paul and Ron moved to Brooklyn, NY and roomed together. Paul worked as a travel agent by day and performed in opera and theatre companies on and off Broadway by night. It was while living in Brooklyn that he met the love of his life, Michael E. Stone.

According to Ron, Paul and Michael were looking for a better life together and decided he Land of Enchantment was exactly the sort of change that they were looking for. In the early 1990s, Paul and Michael moved to Albuquerque, where Paul made an impact on the New Mexico music and theatre scene as big and as deep as his sonorous bass voice.

Paul's list of performances in New Mexico is vast. He performed with Opera Southwest, Musical Theater Southwest, Santa Fe Opera, University of New Mexico, and ew Mexico Shakespeare Project. He was in productions staged at the Adobe Theater. The Vortex Theatre, The Kimo, and the National Hispanic Cultural Center. Notable among his performances wer The Barber of Seville and the title role of *The Mikado*, both staged at the Kimo Theater, and Sir Toby in Twelfth Night at the Adobe Theater. He completed a Bachelor of Music degree at UNM while living in Albuquerque

Paul also directed the New Mexico Gay Men's Chorus for several years in the early 2000's. In a 2003 review of *Have Yourself a Gay Little Christmas* in the Weekly Alibi, the NMGMC was said to be performing at "a very high level" under Paul's direction. In one of his last theatrical productions in 2014, Paul served as the music director for **Shrek the Musical** with Musical Theater Southwest.

While living in Albuquerque, Paul pursued the opportunity to mentor the next generation of New Mexico musicians while teaching chorus at Rio Rancho High School and working as choir director at Del Norte High School.

Unfortunately, Paul experienced his share of tragedy, as well, when Michael passed away in December, 1994.

Paul started as a lecturer and voice instructor in the New Mexico Tech music program in 1999. He commuted from Albuquerque, so his impressive list of accomplishments in Albuquerque overlapped with an equally impressive list of activities in Socorro.

"Paul assisted with the choirs and taught voice lessons from early on," said Doug Dunston, NMT Emeritus Professor of Humanities and former Music Program Director, "and he loved performing. He was equally happy singing as a member of the chorus or as a bass soloist and particularly enjoyed turning the emoting to 11 when on the theater stage, such as in our Madrigal Feasts."

Among his many activities in Socorro, Paul directed the New Mexico Tech chamber orchestra and chamber choirs in the early 2000s; served as vocal coach, choral director, and even executive producer for numerous NMT musicals, including Pirates of Penzance (2002), Orpheus in the Underworld (2006), and The Mikado (2008); performed in and directed plays and musicals through the Socorro Community Theater; coordinated a Socorro-based music group, Encantación, that performed a variety of classical,

medieval, and contemporary compositions; schooled Techies with his nimble swordplay as his alter-ego, Felipe, in NMT's Society for Creative Anachronism; and partnered with Allan Stavely to coordinate the "Wassail!" Holiday concerts at Epiphany Episcopal Church.

Paul was an active member of Epiphany Episcopal Church and directed the church choir off and on and coordinated events such as their annual Messiah singalong concerts. Paul served numerous roles over the years in the Unitarian Universalist Christmas concerts, as well. Even when Paul left New Mexico for several years to take care of his ailing mother in Florida, he was ever the busy music instructor, organizing a 30-person seniors choir at in his mother's retirement community.

Most notably, though, Paul loved to teach, and he lived for his students. His Song and Society class, which he taught intil Spring 2019, was very popular with students and allowed him to showcase his encyclopedic knowledge of music history, which spanned millennia and music genres. Paul was conversant in everything from Vivaldi to Slayer.

More importantly, however, Paul's students found him to be an attentive and caring listener and mentor. It was not unusual for students going through rough patches to seek him out. Paul would sometimes talk to students for hours after class when he felt that they needed a friend.

Paul was the eldest of five children and is survived by his two brothers and two sisters: Mark Stephen, Ann Marie, Martha Jane, and John Giel.



Rhoshan Boman Bhappu

Professor and Chair, Metallurgical Engineering 1960-1972

HAPPU, Roshan Boman, beloved husband, father, grandfather, great-grandfather, colleague and friend, passed away peacefully on December 28, 2019, surrounded by loved ones, at the age of 93.

Roshan was a renowned metallurgical engineer, serving as the head of the department of Metallurgical Engineering at New Mexico Tech from 1960 until 1972. That year, he joined Mountain States R&D International, later purchasing the company in 1987.

He was President of the Society for Mining Metallurgy and Exploration in 1990 and the American Institute of Mining, Metallurgical and Petroleum Engineers in 1992.

During his lifetime, he received numerous honors and accolades, including the prestigious Mining and Metallurgical Society of America Gold Medal in 2010 (previously awarded to President Herbert Hoover) and the Van Diest Gold Medal from the Colorado School of Mines in 1968. Roshan wrote more than 100 technical papers and books. He holds several patents and was a consultant to the United Nations and World Bank.

His journey began in Karachi, India, on September 14, 1926. He graduated with Honors from the University of Bombay before relocating to Golden, Colorado, to attend the Colorado School of Mines, where he earned his B.S. (1950) and M.S. (1951). He attended Massachusetts Institute of Technology before earning his Doctor of Science (1953) at Colorado School of Mines.

Roshan met Carmen Mackintosh during a college mixer dance at Colorado Women's College and they married in 1952. Together, they had four children: Manek, Zorine, Soonalyn, and Ross. Carmen passed away in 1992. Roshan married Perin Shroff in 1993 and gained two new children, Arbez Patel and Homee Shroff. Roshan loved and was loved by his family.

Friends and family knew Roshan for his adherence to his Zoroastrian faith and its mantra: "good thoughts, good words, good deeds." He treated strangers as friends and friends as family. He was never known to utter a sour word, smiled wide, and called everyone "my darling."

He is survived by his wife, Perin; children, Manek Bhappu, Zorine Shirley (Craigan), Soonalyn Jacob (Dan), Ross Bhappu (Candy), Homee Shroff, Arbez Patel (Hoshang); 12 grandchildren and one great-grandchild.

He was a darling figure who will be missed by all who knew him. The family requests that donations be made to the WAAIME Scholarship fund at 12999 E. Adam Aircraft Circle, Englewood, CO 80112 or at www.smenet.org.



Dan Klinglesmith

Magdalena Ridge Observatory Interferometer Support Scientist/E&PO Coordinator

linglesmith, Daniel "Dan"
Alexander III passed away
on July 27, 2019, after a brief
battle with cancer.

Dan worked at NASA Goddard Space Flight Center in Greenbelt, MD for 30 years, where he was head of image processing for the IUE satellite, which launched in 1978.

After retirement he and his wife Gerry moved to Socorro in 1996 where he worked for New Mexico Tech teaching astronomy. He was active in the Boy and Girl Scouts, educational outreach, and astronomy, working with John Briggs at the Lyceum in Magdalena, NM.

Dr. Dan the Astroman, as he was often known, went on to become a masterful weaver after studying at Ghost Ranch in the early nineties. He remained active in the Socorro Fiber Arts Guild, and loved to travel.

He went everywhere from a scuba diving cruise where they were able to see a full eclipse to learning more about global weaving styles. Some of his favorite activities were to eat chocolate, drink whiskey, and make terrible puns. He could cocoa up a pun in a flash,

particularly when whiskey was involved.

Dan and his wife, Gerry, shared a birthday and it was using this as an excuse that he asked Gerry out for their first date, a right he earned through a poker game with friends. Married for 56 years, he certainly won that game.

Born August 18, 1939, he is survived by his wife, Geraldine "Gerry" S. Klinglesmith, his children Dan (Laurie) Klinglesmith IV, Chrissie (Ed) Devinney, Jimmy (Alison) Klinglesmith, and Michael (Kelly) Klinglesmith, his grandchildren Daniel Klinglesmith V, Nicholas Klinglesmith, Zachery Klinglesmith, Hannah Devinney and Liam Devinney, and his great-grandson Daniel Klinglesmith VI.

The family requests donations be made to the Socorro Rotary Foundation, PO Box 972, Socorro, N.M., 87801. Please designate "Imagination Library" on the memo line.



John Richard "Mac" MacMillan

Professor, Earth and Environmental Science Department 1973-1990

acMillan, John "Mac" Richard of Meridian, ID died peacefully on August 7, 2019 with his beloved wife, Roberta (M.S. Computer Science, 1990), and his family around him.

At the time of his death, he was 4B in hexadecimal, a number system he and Roberta preferred to use in their lifelong attempt to conceal their age from their children. His children note he was 75 years old in decimal at the time of his death, but agree that 4B sounds a lot like 40, which is also a very nice age.

Mac was born on January 27, 1944 in Englewood, NJ. He grew up in Summit, NJ and graduated from Amherst College with a B.A. in 1966. He then pursued both Roberta and a Ph.D. in geology at Northwestern University, securing both permanently in 1972.

They then moved to New Mexico, where Mac was a professor of geology for 17 years at New Mexico

Tech. Among other projects, Mac consulted on the location of the Waste Isolation Pilot Plant (WIPP) in New Mexico, advising against the use of a particular underground salt cavern due to the likelihood of water intrusion.

The federal government did not follow this advice and constructed a storage area for nuclear waste there, eventually abandoning that area for such use because of water intrusion. His daughters note that they, too, suffered consequences when they did not follow their father's sage advice, but all of those rare instances cost less than a billion dollars.

During their time in New Mexico, Roberta earned her M.S. at NMT and was offered several jobs, including a job with Hewlett-Packard in Boise, ID. After remarkably little discussion of the matter (geology professoriates being less

lucrative than computer science), Mac gave up his tenured faculty position to follow Roberta to Eagle, ID and take on the role of a home manager, economist, engineer, etc.

Many years of Girl Scouts, swim team, tennis, school lunches, softball practices, science fairs, choir rehearsals, school plays, acolyting, bell choir, and homework-help later, his daughter Valerie graduated from Harvard University and his daughter Joan graduated from Stanford University. Then, in an attempt to make up for all the years subjecting Mac to a house full of extremely opinionated women, they married men he enjoyed and

gave him one grandson by marriage and three more grandsons by birth, in whom he delighted.

Mac's love was deeper and more stable than the bedrock he enjoyed studying, and he expressed that love often in word and deed. Having his wit, fierce intelligence, and memories of his loved ones slowly eroded away by Alzheimer's disease was heartbreaking, and the family expresses special gratitude to those at Touchmark and Keystone Hospice in Meridian, ID, who in his final years and months were truly care-givers.

Those who preceded Mac in death include his parents, Douglas Clark

MacMillan and Elizabeth (Smith) MacMillan, his stepmother Dorothy "Dot" MacMillan, all of East Orleans, MA, and in July of this year, his brother, Douglas S. MacMillan of Doylestown, PA.

Mac will be missed every day by his beloved wife Roberta (Ellen) Schottland MacMillan, daughter Valerie Jo MacMillan Brader and her husband Dr. Ted Brader, daughter Joan Elizabeth Callahan and her husband, Brian Callahan, and his grandsons Carson, Finn, John Patrick, and Teague. He will also be missed by many siblingsin-law, nieces and nephews, and his cousin.



Robert Wayne Ohline

Professor and Chair, Chemistry Department, 1961 - 1995 hline, Robert Wayne passed away in Albuquerque on September 17, 2019.

He was born on March 9, 1934 in St. Louis, MO. He earned his Bachelor of Arts degree from Grinnell College, Grinnell, IA in 1956 and his Ph.D. in Analytical Chemistry from Northwestern University in 1960.

He worked for a year atMallinckrodt Chemical Company in St. Louis before joining the Chemistry Department at New Mexico Tech as an Assistant Professor in 1961.

He was promoted to full professor some years later, served a term as chairman of the department, and taught analytical chemistry until 1995, when he retired.

Wayne was an avid musician and played both the violin and the piano. He played in the New Mexico Tech orchestra during the 1980s.

He was a long-standing member of Rotary and served a term as President.

His family and friends remember him as a gentle, positive, and friendly presence. He entertained his family over the years with his "Dad-isms." Examples include his statements to the effect that he had "surveyed over a million people and his family was the best," that when the family visited we were guaranteed to have "The Fun," and his efforts to make sure his children all learned to how say "perspicacity."

Wayne was a much loved father and grandfather. He is survived by his son, Matthew, daughter-in-law Jill, and grandchildren Aidan and Erin Ohline; his daughter Shane Ohline, and grandsons Peter, Oliver, Theo and Linus Molteno; and his brother, Howard, and sister-in-law Katherine.

To learn more about giving opportunities at NMT, contact us at advancement@nmt.edu or 575-835-5352

To make a financial gift to a department, student club, or scholarship:

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Send us a check: Make it out to "New Mexico Tech" and indicate the fund name on the memo line

Online: go to www.nmt.edu and select "Give" at the top right

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NEW MEXICO TECH: THANKS FOR THE MEMORIES

Nancy Bilderbeck, Alumna Writer, London, England

I was a student at New Mexico Tech from 1974 to 1977 and many of my memories of the university and Socorro fall in the category of "unusual" rather than "everyday life." While my memories may not be 100% accurate (it has been over 40 years!) they certainly are amusing.

One of my favorite memories was from my Student Orientation. Although I had lived in New Mexico much of my life and had already attended college for two years, the Admissions Office pretty much insisted that I attend. A tour of what was then TERA (now EMRTC) was advertised as "a highlight" and we all piled into the back of a flatbed truck to be hauled up to the facility.

At one stop a matriculating freshman from back east INSISTED on returning to his dorm room with a HUGE tumbleweed. No one said a word, though I suspect his roommate had to find a way to broach the topic of "plants (albeit dead) in dorm rooms."

A fellow alum recently contacted me and reminded me that I played on a short-lived intermural water polo team. I have absolutely NO recollection of this but the details he provided support the team's existence.

I DO KNOW who removed all the seats from Weir Lecture Hall and I know where they were "stored," but I will never tell! It is absolutely true that the then president decided we would attend classes and stand through lectures until the chairs were returned. They were returned ... but they were bolted to the floor BACKWARDS!

Do these jog any 1970s memories?

- 49ers antics; scavenger hunts. Did we really steal the UNM flag on Central Avenue and repaint the Lobo?
- The GREEN CLOUD! That's a story!!
- Professors smoking during lectures. Sorry, Professor Lomanitz (RIP).

If you have any unusual and amusing stories about your time at Tech we would like to include them in future editions of The Gold Pan under the heading of "Thanks for the Memories." Submissions can be from one sentence to 300 words; photos eagerly welcomed! Please include an approximate year.

Send your reminiscences to: Rebecca Clemens, Gold Pan editor, <u>rebecca.clemens@nmt.edu.</u> Subject: NMT "Thanks for the Memories."

> THANKS TO THE MANY ALUMNI WHO'VE ALREADY SHARED SOME GREAT MEMORIES -DUE TO SPACE LIMITATIONS, WATCH FOR MORE IN THE SUMMER 2020 ISSUE

Tumbleweeds, Turtle Bay, and Timber Wolves Greg Kardos (B.S. Chemistry, 1977)

I was the roommate of the eastern freshman who wanted to take the tumbleweed back to the dorm. I didn't allow it in the room in West Hall. (I remember Nancy very well. We both worked for Corale Brierley at the Bureau of Mines.)

Among my other memories:

Several friends and I named the Golf Course Pond "Turtle Bay" because there were always turtles sunning themselves. We used to have Friday afternoon keggers at Turtle Bay when the weather was nice. People would collect money from everyone during Friday morning classes and then someone with a car would pick up a keg at the Cap.

Walking on the back nine of the golf course and seeing a wolf coming straight at me. Yes, I was freaked out. Turns out that Sterling Colgate's son



found an orphaned timber wolf pup near Flagstaff and brought it home and raised it as a pet. That wolf came up to me at a dead run, knocked me down, and then proceeded to just lick the heck out of my face. I was stunned to say the least. Didn't know it was a very tame and affectionate animal until later that day. That's a memory for you!

THANKS FOR THE MEMORIES

Painted Pool Borden Putnam (B.S. Geology, 1977 and M.S. Geology, 1981)

During the mid-1970s, when the pool was drained for repair and resurfacing, a marijuana leaf was quickly painted onto the bottom using marine (insoluble) paint.

It drove [then-president] Dr. [Kenneth] Ford nuts! It wasn't able to be removed for months...



Math, DIN-o-saurs, and 2-story hikes Rozann (Waldron) Saaty (B.S. Mathematics, 1959 and M.S. Mathematics, 1964)

I was one of eight women in a student body of 300-plus. We lived in a little house of a dorm up on the hill and walked up and down to the campus to take our meals in the cafeteria. Mrs. Wadley, the sweetest, most elegant southern/western lady in her eighties, was our dorm mother.

Mr. Speares was in charge of the library and Dr. Marvin Wilkinson was in charge of the Physics department. One summer I had a job working for him to monitor the radiation drifting down the Rio Grande valley from nuclear tests in Nevada.

Dr. Sanchez from Puerto Rico, a graduate of a famous math department in a Texas university, was the head of the NMT math department. I went on to get an M.S. in Mathematics - what else what a girl going to major in at a school full of mining engineers, petroleum engineers, and geologists? They were from all over – the Middle East, the eastern United States, Texas and even some from New Mexico.

I took geology – everyone had to, it was required – and I was pretty good at it. Really, it is mostly common sense. Continental drift was only a wild-eyed theory then and the geology professor called the creatures of old the "DIN-o-saurs." He was a graduate of Caltech - maybe that was the way they said it.

I have many good memories of Socorro and New Mexico Institute of Mining and Technology: the Fall trips up the mountain to give the M a fresh coat of paint (we did have to watch out for rattlesnakes and I suppose you still do); 49ers days; Dr. Workman, the longtime President, a lover of golf who had installed a 9-hole golf course on the campus; trudging down to the one ladies room in the whole place that was on the ground floor of the Engineering building when I had classes or worked on the third floor.

It was a great start and I have had a very satisfying life. I married a well-known mathematician, Thomas L. Saaty, who developed the multi-criteria decision making theory called AHP (Analytic Hierarchy Process), devising a way to measure intangibles and combine those measures with tangibles to make good decisions. I worked alongside him for many good years, and though he passed away two years ago I still work on his theory, running our foundation to promote rational decision making, publishing books, supporting an online journal about it and sponsoring international meetings.



TERA-ra Boom-de-ay John Laskin (M.S. Geochemistry, 1982)

In 1977 and 1978, the NMT Terminal Effects Research and Analysis (TERA, now EMRTC) Group ran the fireworks display from the parking lot next to the soccer field. Most of the town ended up on the field shooting bottle rockets and other pyrotechnics up and at each other. TERA's were great - and they also seemed toss around quarter sticks of dynamite, which were extremely loud.

2019 Annual Giving

Past to Future: Making Memories at New Mexico Tech

There's always time to give!

Mike Stanley Mining Engineering Class of 1984

My favorite memory of Tech is meeting my wife Meri! Hanging out in Upper West Hall with Mark Spicer, Keith Roden, Tom Dea, and Luis Bernardez working on homework assignments, playing golf in the hallway, and going to movies in the Tin Can.

I give to Tech because I believe NMT is the best place for students to not only get a great education but also gain valuable life experience working on research projects directly with faculty and staff. Tech has been a great place to work, mentor students, and has a great family atmosphere.





Ways to Give:

Visit our website at https://advancement.nmt.edu to make a one-time or monthly gift online Call LaVern at 575.835.5616 to use a credit card by phone

Send us a check, made out to New Mexico Tech (write fund on memo line)

Need to contact us? Please call 575.835.5352.

Thank you

With an article title of "Alumni Giving" I would expect a first reaction to be ... turn the page!! But I would implore you to read on, if only out of curiosity.

Like many of you alums, beyond New Mexico Tech we have attended graduate schools and are linked to other colleges and universities through our children. For various reasons, requests to "give back" rarely originated in Socorro, New Mexico. But there are numerous ways to support Tech and these can be large or small.

My most remarkable experience of Alumni Giving is related to Princeton University. When my son matriculated there we attended a "meet and greet reception" hosted by the school's president. Within the first few minutes of her welcome we were told that Princeton would pursue us for contributions from that day forward. This has come to fruition in spades – not only does my son receive numerous and frequent requests, we, as parents do too.

Princeton uses all sorts of challenges to raise funds: class that gives the most money, class with the largest number of individuals donating, a class anniversary, a class celebration, specific projects, etc., etc., etc. Requests arrive by email and post and phone.

In addition to Princeton's requests we get contacted by Brown, Harvard and the University of Texas. More recently Oxford has been added to the list as they have begun to raise money using a USA model. Even our children's secondary (high) school now has an annual giving drive. These universities and schools, many with HUGE endowments, invest heavily in fundraising ... why not Tech? One possibility is that NMT has not historically cultivated a culture of giving. I recently met a newly graduated alum who gave monthly to the school where he did his undergraduate degree but had not considered giving to Tech - which supported him throughout his PhD work.

The good news is that with the expansion of the Office for Advancement and Alumni Relations, opportunities to support NMT are more varied and easy to engage in.

Giving opportunities come in all shapes and sizes: - donating money, donating resources, donating your time. For example:, alumni receptions can be hosted (see page 35).

Is deciding who to give to a dilemma for me? Would it be Princeton, Harvard or Brown ... or NMT? My heart is in Socorro and I know it is an institution which needs funds and will use the money wisely. At Tech donations make a real difference on a very personal level. I give what I can and I give anonymously ... but the thanks and appreciation are overwhelming!

If you feel you are in a position to "give back" to New Mexico Tech, contact the the Office for Advancement and Alumni Relations. They will discuss options and, perhaps more importantly, keep you informed as to how your contribution is changing the campus for the better. Although a cliché, no amount is too small and I REALLY mean that!! Thank you for not turning the page – until now!

BRIGHT STAR SCHOLARSHIP PROGRAM

In December 2019 the New Mexico Tech "Bright Star Scholarship Program" was launched in partnership with the New Mexico Bureau of Geology & Mineral Resources. Alum and longtime NMT supporter *Dr. Raul Deju* (*B.S. Mathematics, 1966 and Ph.D. Hydrology, 1969*) has seeded this work study program to serve as a catalyst for undergraduate Tech students to pursue their future success through practical hands-on research.



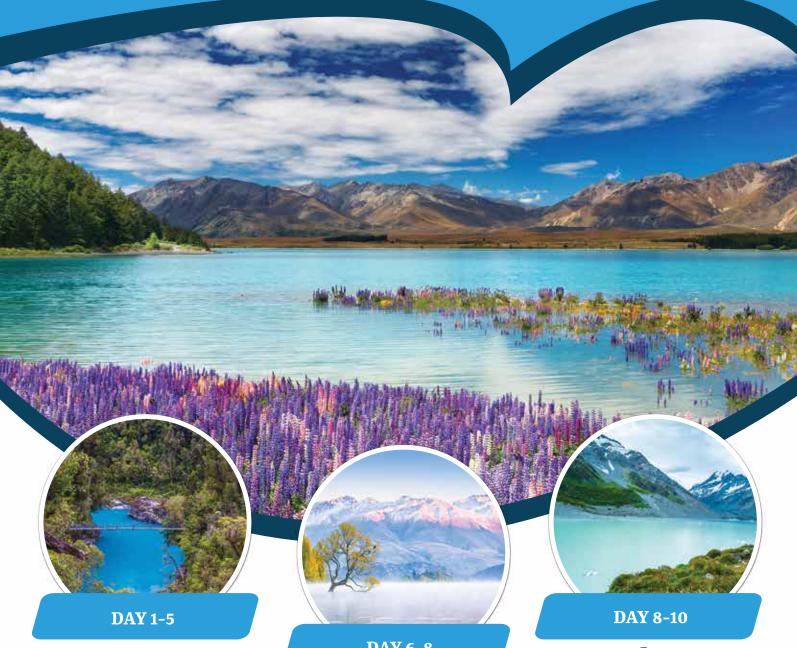
Work study programs have been among the most influential programs in Tech's history, benefiting both students and faculty researchers as challenges are addressed through applied research. The following three students have been awarded the inaugural scholarships for the Spring 2020 semester:

- Brandon Dennis (Computer Science). Dave Kasefang, Network Systems Administrator, and Chris Armijo, Computer Systems Administrator, will be mentors for solving problems related to Bureau IT support.
- Arzoo Rishad (Petroleum & Natural Gas Engineering). Dan Koning, Senior Field Geologist, will supervise research on the paleomagnetic analysis of sedimentary rocks.
- Haley Dietz (Earth Science with Geology Option) has been presented with the third scholarship, the Gloria Peterson Award, honoring the memory of the late wife of former longtime NMT Vice President and Foundation Trustee Denny Peterson. Dr. Virginia McLemore, Principal Senior Economic Geologist, will be supervising research on rare earth element deposits in the Gallinas Mountains.

Dr. Deju challenges New Mexico Tech alumni, employees, and supporters to match his original donation, thus increasing the number of Bright Star work-study scholarships that can be awarded annually.

TOUR NEW ZEALAND WITH DR.BRUCE HARRISON

MAY 13-22, 2020



Day 1 & 2:

Christchurch: Visit to Amberley wine growing region

Day 3:

Travel to Hokitika, the center for jade jewelry

Day 4 & 5:

Franz Joseph. Glaciers and Bird watching at Okarito Lagoon

DAY 6-8

Day 6:

Wanaka-and a magnificent lake of the same name.

Day 7:

Vineyards in one of the southernmost wine growing regions

Day 8:

Travel to Mt Cook

Day 9:

Hiking, helicopter rides over glaciers

Day 10:

Return to Christchurch

Cost

Cost per couple \$2500 Cost per person \$1700 Total number: 8

For inquiries call or email Dr. Bruce Harrison Phone: 575-835-6379 | james.harrison@nmt.edu



Sometimes people find themselves on a path that diverges from their planned destination.

Many New Mexico Tech alumni have found their life path taking them in an unexpected direction due to external (bad economy, family crises, etc., etc.) or internal (change of passion, serendipitous encounter, etc., etc.) forces.

Several NMT alumni generously shared their Unexpected Path stories - we hope you enjoy reading the amazing variety and fascinating experiences of your peers, classmates, and fellow alumni.

NOTE: The story connected to this issue's cover is presented first; all others are in chronological order by class year.



COVER STORY

Aaron Curtis (M.S. 2012, Geochemistry, and Ph.D. 2016, Earth & Environmental Sciences Geochemistry)

I learned about New Mexico Tech's work on Mt. Erebus (Antarctica) from my volcanology professor during my Geography B.A. at Cambridge University. It sounded like the place for me, so I moved to Socorro in 2009 and started my unbelievably wonderful grad school experience at NMT, traveling to Antarctica 7 times to study Erebus' fumarolic ice caves.

The Antarctic volcano featured molten lava, brilliant people, and insane ice crystals, but it was missing something: robots. So, I won a NASA Postdoctoral Fellowship, moved to Pasadena and started working at the Jet Propulsion Laboratory (JPL) to create the world's first ice climbing robot. We tested an IceWorm gripper in the caves on top of Mt Rainier and the full robot in the caves inside the crater of Mount St. Helens. The Rainier fieldwork was the hardest I've done - a two-day climb to 14,400' with 70-pound packs, and then camping and caving for a week near the summit.

JPL is an incredible place to work. I've been involved in missions and mission proposals including Europa Lander, MoonDiver, and a concept for a Uranus flyby called QUEST. By the end of my three-year postdoc, I knew I wanted to work there permanently.

After an intense search for a JPL job, I landed something I absolutely love. I was selected as one of the four people in the 2019 Rover Planner class for Curiosity; I'll spend half my time for the next year or so earning my Martian driver's license. The other half of my time is spent data processing pipelines for https://trek.nasa.gov. The third half [sic] is material properties work to help Europa Lander understand ice, and helping with various other small grants. If MoonDiver is selected, I hope to work on that too.



Dr. Curtis and colleagues in Mothra Cave in the crater of Mt. St. Helens

Thanks, NMT, for this wild ride!

Joe Kingsley (B.S. Physics, 1961)

I dreamed of being a physicist, working in the nuclear energy field, I dreamed ever since I was in high school of trying to discover anti-gravity almost to a passion!

Graduating in 1961 with a major in physics and a minor in nuclear physics, I later started working at the Douglas Aircraft Missiles and Space Division, which was my dream job! I was honored to be working on the space lab power supply and in the process of doing this job I became good friends with Donald Douglas, Jr. and also became proficient in Operations Research techniques,

In February of 1974 the new President of the United States, Lyndon Johnson, wanted to explore ways to end the Vietnam War. He and the Department of Defense called a top secret session at the Biltmore Hotel in downtown Los Angeles for the purpose of discussing the possibility of developing the neutron bomb.

This presentation was about three hours long and about two hours into the presentation, I felt very uncomfortable being a part of this effort, My friends sitting next to me agreed hat this was not we went to school to accomplish. We decided to get up and leave this presentation by President Johnson. As we were leaving the Secret Service agents requested our documentation, which we gladly handed over to them.

After driving 45 minutes back to our facility in Santa Monica there were Secret Service agents with our property in the hall of our office area. We were told that we were no longer able to go into our office because our secret clearances had been canceled. Therefore, my friend and i would no longer able to work on the nuclear power plant for the space lab.

Donald Douglas, Jr. told me he had no idea what I did but he want did not want me to leave Douglas Aircraft. He invited me to stay on salary until he could find a position for me within the company. For almost four months I came to work and did nothing!

Finally, an opportunity arose to forecast the transportation needs for the State of California 50 years into the future. After six months, the hundred-page document was presented then-Governor Jerry Brown. General Motors (GM) was against the report because it downplayed supporting more freeways and encouraged public rail transportation and rail. Guess what, it is now being implemented 60 years later!

I stayed with Douglas Aircraft and was responsible for determining the optimum size for the C5A cargo plane and the

DC-10. Later, American Airlines agreed to buy the DC-10 if I would agree to work in New York as director of Corporate Planning. This career change gave me more rewards than I could imagine.

While at American, I was able to fund the FIRST experimental internet terminal with a group of graduate students from the University of Pennsylvania. One of my employees from there informed me that some of his graduate student friends were working on the concept of connecting typewriters to a remotely located computer mainframe. and they were calling it timesharing. To make this work, they needed \$65,000 and a remote office in which to locate a IBM Selectric typewriter.

I was so intrigued with this concept, I put a budget of \$70,000 toward the effort and had the IBM machine put in my office in New York City. My colleague in the computing department did an application program for a specific problem and this resulted in a huge return on Investment. This concept has resulted in what is now called THE INTERNET!



Bruce Hall, John McCaffrey, and **Joe Kingsley** reviewing one of the first 'print outs' of the timeshare machine, later called the internet terminal.

Rick Mayes (B.S. Physics and B.S. Mathematics, 1968)

At New Mexico Tech I was working as a co-op student with jobs in explosives testing for one year and thunderstorm research for three years. I also spent a summer at Los Alamos working on a nuclear fusion research project.

After NMT, I started graduate school in Electrical Engineering at Stanford. I had a research assistantship building a High-altitude Meteor Wind Radar (shades of NMT!). The Vietnam draft was after me the whole time I was there, and I decided to sign up for Navy Officer Candidate School (OCS) as a better alternative. I did manage to finish my Master's degree at Stanford by the end of the school year.

After I completed OCS in Newport, RI, I was commissioned an Engineering Duty Officer. As I soon learned, with my training and assignment on a destroyer, "engineering" meant oil-fired boilers, steam turbines, and lube oil pumps. My EE education didn't give me much background in high-pressure steam power plants!

On the USS Perkins, I spent my first months on the ship off the coast of Vietnam assigned to gunfire support, carrier plane guard, and North Search & Rescue duty. It was very exciting to con a ship making 32 knots behind an aircraft carrier that could go a little faster and might suddenly turn without telling us! But if a plane went in the drink, we were

there to pick the pilot up.

My next Navy assignment was as a Systems Engineer monitoring defense contractors' development programs. At least this was more in line with my education! I followed programs in missile counter-measures and guided torpedoes among others.

During this time in the Navy, I completed my MBA at USC. This launched me on a career path as a Product Manager and in Strategic Marketing and Management positions. This included 16 years at Hewlett-Packard developing and introducing the first HP drafting plotter, HP's first color inkjet printer, and engineering workstations.

I moved on to be VP or Director of Marketing at other companies in printers, medical devices, and engineering develop-

ment tools. I learned how some CEOs could be incredibly egocentric and incompetent. This motivated me to make a career change and get out of the corporate world.

I decided to work for myself and become a Fee-Only Financial Planner. This entailed a lengthy course with the College for Financial Planning, passing a two-day test to become a Certified Financial Planner, and setting up my own Fee-Only Financial Planning office.

Over thirteen years in my practice I advised more than 250 clients, and I worked hard to save them from annuity salesmen and predatory brokers. It gave me great satisfaction helping middle-income clients achieve their goals with unbiased financial advice. I retired two years ago from this career.



Raul A. Deju (B.S. Mathematics with a minor in Physics, 1966 and Ph. D. in Geosciences [Hydrology], 1969)

After graduation I went to a one year Visiting Professorship in Hydrology at the National University of Mexico, wrote and published the book "*Regional Hydrology Fundamentals*." I continued working in the field of hydrology until a few years later when I moved into the management field heading large engineering and operations companies culminating with being COO/President, Senior Executive and/or Board member, and partner of companies in the field such as energy solutions, headwaters, URS and waste management.



Throughout my career I have taught Hydrology, Environmental Management and numerous business school classes at places such the University of Pittsburgh, Wright State University, University of California at Davis and John F. Kennedy University. I launched an Entrepreneurship Program focused on veterans and minority groups. This program is soon headed online.

Currently, I have closed the loop and combined my management and Hydrology expertise serving as Chair of Texas Water Supply Company as a partner of Brightstar Capital Partners, LP.

50 years after graduation, and after over 50 reviewed technical papers and seven books, I just co-authored with Michael Thornhill (a hydrologist and colleague) a Regional Study in Texas entitled "The Challenge of Supplying Sustainable Water to one of the Fastest Growing Metro Areas in the US (The Austin-San Antonio corridor)" which was peer reviewed and appeared in the 4Q 2019 issue of **The Professional Geologist** (a publication of the American Institute of Professional Geologists).

I still very fondly remember New Mexico Tech, serve on its Foundation Board, and actively contribute to the school.

Remember your education stays with you for all your life and molds it.

Linda (Bodenhamer) Heath (B.A. Mathematics, 1970)

I was trained as a mathematician and sociologist (MA at Texas Tech), specializing in computerized forecasting. I spent 25 years in the information technology industry, working as a forecaster, programmer/analyst, demographer, researcher, and project manager. Growing up in and then living among various cultures, I was impressed by the ancient and classical art in Morocco, Spain, France, Arabia, Egypt, Britain, Turkey, Greece, and Italy. The different spiritual pathways reflected in archaeology affected me profoundly.



Linda and Ted Heath.

As a hobby, I returned again and again to oil painting, striving to match the masters I had seen in worldwide museums. After retirement, I went back to college to obtain classical art training at the Academy of Art University in San Francisco. I continue to refine my skills in workshops with contemporary masters and display my work in various local and national juried art shows.

Growing up in New Mexico, I have always been fascinated by the blending of ancient cultures here. In addition, the future has always beckoned brightly to me through images from NASA's space telescopes, as well as our incredible night skies. Now, with the next chapter of private space exploration developing rapidly, I am inspired to create a new type of art called "Fusionism" or "Fusionist Art". Fusionism is a new art movement that blurs the lines among different cultures, fuses old and new painting media, and mixes human with computer-generated work. It is a perfect blend of my technical skills with ancient techniques and ideas.

I am inspired by ancient native cultures, digital images from NASA's Hubble space telescope, and the opening of Space-port America in New Mexico. My first series, *Ancient Spirits I - Native Voices*, reflects a spiritual pathway from here to eternity led by ancient Kachina guides. I've started on my second series, Ancient Spirits II - Mission Whispers, which blends our Spanish Christian heritage with the glory found in deep space. Most works are proportioned to the Golden Ratio, reflecting my mathematical background and connection to classical art.

Examples can be seen at www.lindaheath.com.

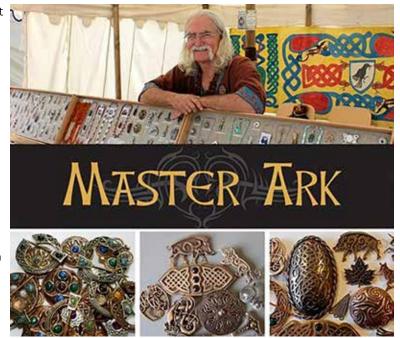
William "Bill" Guse (B.S. Biology, 1970)

I graduated from New Mexico Tech with a B.S., Highest Honors, and the Brown Medal - I was set to conquer the world. I applied for numerous research positions, determined not to take a job unless it was "commensurate with my education and ability." When I finally landed my first position it was as a janitor in a liquor store.

With a better knowledge of what I could achieve with my bachelor's degree, I went back to school. I emerged with a Master's in Horticulture from Washington State University - this degree would serve me as well as my bachelor's had.

Fortunately, in Albuquerque I had taken a night class at TVI (Technical Vocational Institute, now CNM) and learned novelty glass blowing. Making and selling little glass figurines would support me for the next ten years.

I flirted with living in Southern Oregon in the 80's and took another night class, this time at a community college where I learned the fundamentals of jewelry



making. Finally I had some education that was going to pay off! I have been making a living as a jeweler now for over 35 years.

Ten years after I graduated from NMT I ran across a medieval re-enactment group called the Society for Creative Anachronism (SCA). This is a group of people who study and then live out the Middle Ages at events. Each person creates a medieval persona and at events they assume their medieval identity. Of course they dress the part, so there is a need for historically-based jewelry. Everyone has a cloak. To close it they need a cloak clasp. Forty years ago cloak clasps were pretty much impossible to find, so I started making them. I now offer brooches and pendants as well, but cloak clasps supported me for 25 years.

Within the SCA I am known as *Master Ark*, Master being a title I earned for my work in the arts. At 71 I am still making new pieces and selling jewelry. I am shifting my business online as doing events becomes more challenging. You can see my work and read more of my story at MasterArk.com.

I will always treasure the four years I spent at New Mexico Tech. I transitioned from a boy to a man there and I made friends that I have to this day. I truly believed that my academic achievements would translate into success in the outside world. The last thing I ever expected to do was earn my living with my hands. Life has been an adventure and often taken me by surprise, but I wouldn't want to have missed any of it.

Stephany "Steph" Moore (B.S. Technical Communication, 1995)

I came to NMT in Fall 1984 as a freshman, intending to major in Geology. Did not do well academically, mainly because I wasn't really emotionally ready for college. Did not come back in Spring 1985. (If I had, I would have been on academic probation. Quite the comedown for someone who'd been a straight-A student until that point in my academic career.)

Enrolled at UNM full-time in Fall 1985 and got a part-time job at a law firm as a file clerk. Over the next seven years, I accreted tasks and went from being file clerk, to file clerk/librarian, then to file clerk/librarian/courier. At that point, I decided to become a full-time employee and part-time student. Became a paralegal. Had a scary health issue in 1989, and decided that I'd better finish my degree. Went back to school full-time at UNM in 1990.

Transferred back to NMT in Fall 1992, since my paralegal experience made me interested in Technical Communication. Met my future spouse in August 1992 in Cramer Hall as I was panicking about an oral presentation I had to give in a TC class that day. His suggestion: Adopt a persona that is thoughtful and bemused. (It worked. We've been together since February 1993. And we're both still thoughtful and bemused.)

I finally got that bachelor's in Technical Communication in 1995 because of him -- mostly because he refused to let me fail Physics. Again.

What did I do with that TC degree? Well, I've spent the past 20 years sitting in an office at New Mexico Tech as the

Steph Moore and partner Alan Kerr with two Sulcata tortoise companions (The Mountain Mail, June 2007)

Institutional Researcher. I pull data from the student database and use it to develop institutional enrollment and various other official statistics.

The administration uses this data for accreditation, accountability, and setting success metrics. The federal and state governments require this data as part of our funding. And you know all those college review publications that rank Tech so highly? Guess who provides them with the data for such rankings? Yep. Me.

It's been an interesting 20+ years. And I'm still not a Technical Communicator, but it's okay: I am useful, off the streets, and (mostly) out of trouble..

Gina Peterson (B.S. Mathematics, 1998, and B.S. Basic Sciences, 2001)

While attending New Mexico Tech, I met my husband, Dominic (B.S. Chemistry, 1997; M.S. Chemistry, 1999; and Ph.D. Chemistry, 2001), and we had our first son. I was actually 7 months pregnant with him when I walked in my first NMT graduation. I felt it was important for me to stay home with my son and immediately began my first career - mom after he was born.

As time went on, I became very drawn to helping nursing moms, because I felt breastfeeding was such a gift you could give to your child and to yourself in so many ways. I then became accredited as a La Leche (LLL) Leader just days before my second son was born and held various positions in the organization during my 12.5 years of service. This was the beginning of my second career, lactation. In 2007, I became an International Board Certified Lactation Consultant (IBCLC) - the gold standard of lactation care. In 2009, I took over as Executive Director of the Catholic Nursing Mothers League (CNML), a non-profit organization created to encourage and support breastfeeding mothers. I also wrote



a book that was published in 2015 entitled, "Getting Started with Breastfeeding: For Catholic Mothers." Between my book and the blog I regularly keep up for CNML, I do quite a bit of writing which was definitely unexpected. I guess you could say author/writer is another one of my careers.

When my oldest son turned 4 and after much research, I decided to start my third career, home educating my children. We now have five children – 4 sons and 1 daughter - ages 20 down to 7. I have taught them all to read, write, do math, and a slew of other things. Most of my kids are bibliophiles like me; we own thousands of books! Besides teaching them the basics, my goal is to help them love science. We have owned a zoo of animals over the years which has taught them not only how to care for animals but also compassion. We read science books, watch documentaries, do science experiments in our kitchen and dining room, and go on field trips. I also led a science experiment group for homeschoolers for a few years. I think my passion for science is starting to spill over to a few of my kids; my oldest son is currently a junior at NMT studying mechanical engineering. After he finishes his degree, we will have 6 degrees from NMT in our "little family."

Although not necessarily an "unexpected path" considering my degrees, I started teaching mathematics part-time at UNM Los Alamos in the fall of 2017, my newest career. I have taught every semester - including summers - since I started there. I very much enjoy all the varied opportunities I have had over the years to take care of my family and to help others.

Nathan Girdner (B.S., Mechanical Engineering, 2003)

I celebrated three years working on the Dream Chaser autonomous spaceplane for Sierra Nevada Corporation (SNC) in Louisville, CO in December, 2019. Along with this milestone, I was also promoted to Principal Systems Engineer and team lead for the Systems Autonomy & Fault Management (SAFM) development team.

I followed an unexpected route since graduating from NMT, though - I started off working overseas in oil and gas, I later took what I thought was a "short-term" job as a software tester, where I eventually discovered a talent for Systems Safety engineering — a discipline I didn't even know existed when I was an undergrad! Over a decade+ span I went on to work on system safety analysis for air traffic control and aircraft avionics systems, helping to make air travel safer and more efficient across the US. That work eventually led me to SNC, where I've been able to live out a childhood dream of making manned space exploration more feasible and economical.

My start at SNC was leading hazard analyses on the avionics and communication systems for Dream Chaser, an auton-

omous reusable spaceplane that will carry cargo to the International Space Station and then return to land on a standard runway. From there, I was asked to join the SAFM team to write the software that will perform fault detection, isolation, and redundancy management onboard the Dream Chaser. I have loved both jobs because they've allowed me to see the "big picture" of how various systems interact and enable the vehicle to carry out its mission, but also to focus on the small details and failures that could cascade into a catastrophe if left unaddressed.

I credit my time at NMT with helping me succeed as an engineer - because NMT was so small, I got to interact and build friendships with people from a variety of disciplines, not just those within my major. That's helped me to think about and learn about not only mechanical systems, but also electrical and software, and how humans interact with all of these systems. Dream Chaser is scheduled to perform its first flight in late 2021, and I'm excited to see the work through to that milestone and beyond.

I enjoy living outside of Boulder, CO, where I spend my summers running and cycling, my winters attempting to downhill ski, and all seasons enjoying good craft beer.



Jeremiah Gage (B.S. Mathematics with Minor in Psychology, 2005)

I entered New Mexico Tech in the Fall of 2001 as a computer science major with an interest in becoming a software engineer, but ended up in the pool and billiards industry with multiple businesses, products, and services. Here is my story.

When starting at NMT, I quickly realized there was not a whole lot to do in Socorro, especially being under 21. NMT offered a pool and billiards elective course, so I signed up for that and developed an immense passion for the sport - thanks Ray! After taking all three available pool and billiard courses, I practiced all of the time - after completing my homework of course. During college, I participated in threeACUI tournaments in the region and ran the Billy Aards club for a couple of years.



Jeremiah Gage in the finals of the 2017 VNEA International Championships.

After graduating, I kept studying the sport and practicing, and played in local, regional, and national tournaments. In 2009, some fellow pool players and I opened up a private non-profit billiards club in Albuquerque and ran it for five years. I received my PBIA certification to become a professional billiards instructor and taught at the club. We also started a chapter of the USA Pool League in 2013 with divisions in 3 separate pool halls.

In 2014, I moved to Denver and launched a billiard training product called Bullseye Billiards, which is a game played on a pool table to help players practice cue ball control. I have shipped thousands of these sets all over the world, and Bullseye Billiards also comes in an eBook and an iOS app. For more info visit https://BullseyeBilliards.net.

In 2017, I partnered with a large cue manufacture to create the DigiCue Blue, which is a training device that records the acceleration of the cue to give feedback on every shot a player takes. The app then aggregates the shot data for the player to analyze their game.

Currently, most of my time is spent freelancing iOS app development, but I continue to work on a number of new high-tech products to help players learn and practice billiards.

Paul Gabrielsen (M.S. Hydrology, 2012)

My unexpected path began only a few weeks into my Hydrology Master's program in 2009. I was chatting with Melvin Hatch, Emeritus Professor of Chemistry, who told me a story about a long-ago hydrology program director. That ignited my fascination with the stories and the people behind scientific discoveries. I'd minored in English, and wondered how I could research and write that story.



Paul Gabrielsen, 2018 Golden Spike recipient

A few months later I was on the way to a meeting with my graduate advisor in Jones Annex when I saw a poster that stated simply "Write About Science." Before then I hadn't even thought that it would be possible to turn storytelling about science into a career, but that poster, advertising a science journalism training program, changed my entire career pathway.

While finishing my master's, I wrote and published stories for *Paydirt* and for the Socorro *El Defensor Chieftain*, looking to gain any journalism experience I could. Those clips, which featured NMT professors, Socorro community events, and the Albuquerque Natural History Museum, helped me get a spot in the UC Santa Cruz science communication program, and from there I've worked at Stanford, NASA, and the National Academy of Sciences.

Now I'm a senior science writer at the University of Utah. Every day I use my research background and my journalism training to spread the stories of science far and wide. Each day brings different stories: some about rock formations, some about industrious badgers. I write about psychology, chemistry, and everything in between. I may have deviated from the traditional hydrology pathway, but my career definitely got its start in that hallway in Jones Annex.

UNEXPECTED PATHS...CROSSING

Ward Arendt (B.S. Geology, 1968) and his wife returned to the NMT campus during the 2018 49ers for his class's 50th reunion.

During their visit, they were in Fidel Center, on the 2nd floor, and saw the large photograph at the end of the hall of the boy with the slide rule.

That's Ward. He was, and is, very proud to have his picture from long ago displayed for all to see.

Ed. Note: The 2018 49ers celebration also featured the first "Slide Rule" Heritage competition.

The 2nd Annual Slide Rule Challenge was held during the 2019 49ers weekend. - see page 9 for more details.



Do you have an address, email, or phone number update? Prefer to go digital only? Have big news to share?

Contact us at advancement@nmt.edu or 575-835-5352

RECENT ACHIEVEMENTS

ALUMNI

Bernadette A Hernandez-Sanchez (B.S. Chemistry, 1999) has been selecdted as the 2019 recipient of the Stanley C. Israel Regional Award for Advancing Diversity in the Chemical Sciences for the Rocky Mountain Regional Meeting of the American Chemical Society (ACS).

The award was presented at the ACS Southwest & Rocky Mountain Regional Meeting in El Paso, TX last November.

She has been with Sandia National Laboratories Water Power Technologies Program since 2009 and is a principal member of the technical staff.



Dr. Kelly Trujillo (B.S. Biology, 1996) is the new director for the Achieving in Research, Math and Science (ARMAS) Center at New Mexico Highlands University. The nationally acclaimed ARMAS Center provides comprehensive STEM support services to students.



After receiving his B.S. at New Mexico Tech, Trujillo earned his Ph.D. in molecular medicine from the University of Texas Health Sciences Center in San Antonio and completed post-doctoral research at the Stowers Institute for Medical Research.

He was a staff scientist from 2007 to 2013 at the University of New Mexico Health Sciences Center in the department of molecular genetics and microbiology. From 2013 to 2016, he was a tenure-track professor at the University of Nebraska Medical Center, teaching in the department of biochemistry and molecular biology.

Trujillo was a medical researcher as well as a science educator at both the college and high school levels. From 2016 to 2019, he was the science department chair at Desert Academy in Santa Fe, where he taught biology, chemistry and physics to high school students.

"My whole career has been about mentoring, whether it's in a laboratory setting or a classroom," Trujillo said. "I see highly successful tiers of mentoring at ARMAS, which are always fantastic learning opportunities. Mentoring is about building personal relationships that go well beyond the classroom." Trujillo said that it's very rewarding for a mentor to see students reach the heights of pursuing master's degrees or Ph.D. programs.

Sam (Shang-Yu) Yang (M.S. Computer Science, 1994) My older son graduated from engineering school at UNM last year, and keeps up with good work at the largest power generating station under Arizona Public Service. He also just moved into a newly built community on the west side of the Phoenix metro area. I am really proud of him to be so independent at such a young age!

I am working for GearKing Inc (https://www.gearking-inc.com/) and aiming to be the best systems engineer specializing in Robotics and smart devices. Opportunity comes and goes, but is always given to those who are well prepared.

FACULTY

Haoying Wang (Assistant Professor, Department of

Business and Technology Management) has authored a Permian Basin economic impact study, "The economic impact of oil and gas development in the Permian Basin: Local and spillover effects," recently published in Resources Policy.



The Carlsbad Current Argus recently

published an article and quoted quite a few paragraphs from this study, including some of the policy suggestions Dr. Wang made in the paper. The article link is at https://www.currentargus.com/story/news/local/2020/01/29/eddy-county-nm-oil-gas/4587738002/.

Martha Cather from PRRC provided very generous data support for this study. The news story has been reproduced by MSN news and NM Oil and Gas Association (NMOGA). Dr. Wang's study is available through Science Direct: https://www.sciencedirect.com/science/article/pii/S0301420719306804.

ALUMNI SPOTLIGHT

Jeffrey Best - Unexpected Paths

Jeffrey "Jeff" Best (B.S. Mineral Engineering, 1997) was born and raised in Arizona, in a family with multi-generational ties to the mining industry in the area. After high school he joined the Marines as a machine gunner, serving six years throughout Europe, North Africa, Middle East, and Asia, leaving in 1992 after the first Gulf War.

Deciding it was time to pursue a college degree – specifically one in engineering – Jeff realized that his career had not been one that kept his math skills honed, and he chose to attend Cochise College in Arizona to polish his math knowledge.

Three life-changing events happened while he was a student there: he earned an Associate's degree in Professional Flight Technology in 18 months, he met (his now wife) Stacy, and he decided to take calculus to prepare for pursuing an engineering degree.

One day his math instructor asked why he was taking calculus (it wasn't required for the Associate's); he explained his interest in becoming an engineer, although he wasn't sure what university he wanted to attend. She handed him a New Mexico Tech catalog from her desk and said "go here." In best Techie style, math teacher and alum **Barbara Krueger** (B.S. 1987 and M.S. 1989, Mathematics) recruited a stellar student for NMT!

Jeff looked through the catalog and then arranged for a campus visit. His faculty tour guide was Dr. Kalman Oravecz (Mineral Engineering Department) - that visit was all it took.



Glencore VP Copper Mine Operations - Americas, Santiago, Chile

Jeff and Stacy were married on December 31, 1993, and spent their honeymoon in January 1994 in a rental truck moving to Socorro. Stacy, a nurse, was able to land a job at Socorro General Hospital thanks to assistance from Dr. Oravecz's wife.

Stacy, college student Jeff, and Mackenzie at the 1995 SME Conference

For the next few years, Jeff was a student by day and Stacy was a nurse at night. This came in handy when they had their first child and they could practice tag-team parenting.

Sometimes, of course, scheduling issues came up – and once again NMT and Socorro stepped in to assist. Dr. Catherine Aimone-Martin (Mineral Engineering Department) insisted Jeff drop his very young daughter in her office while he attended class, and Socorro General Hospital was extremely flexible about Stacy's hours.

Jeff and Stacy still love and appreciate the New Mexico Tech and Socorro communities.

Graduating in December 1996 (officially Class of 1997), Jeff took an internship, and then a job, with Phelps Dodge Corporation at the Chino mine in Arizona, becoming the 5th generation of his family to work for them. (Previous generations had been employed on the non-technical side; Jeff and his brother were the first in their family to attend college.)

In Arizona Jeff and Stacy were both working full-time and they had a second child. Jeff began coursework, one night class at a time, in pursuit of an MBA.

Stacy strongly encouraged him to become a full-time student again to earn this degree, and they wound up in Chicago living in student housing with their two small children. Jeff earned his MBA at the University of Chicacago while Stacy worked at Northwestern Memorial Hospital.

ALUMNI SPOTLIGHT

Jeffrey Best - Unexpected Paths



At Luilu Processing PLant in Kolwezi, DRC, while CEO of Katanga Mining

The family had adventures (e.g., shootings outside their house during elections) and traveled extensively (the kids have been to more than 45 countries).

While Jeff remained in the DRC, Stacy and the girls moved back to the U.S. in 2010 when the kids were teenagers so they could graduate from an American high school.

Daughter Mackenzie has earned a bachelor's degree at Middlebury College and is currently pursuing a graduate degree in Geochemistry in the New Mexico Tech Earth & Environmental Science department. Daughter Kylie earned her bachelor's degree at Bowdoin College and is teaching English and French in Brest, France.

In 2011, Jeff joined Glencore (Africa Operations and later, South American Operations). Stacy remains (technically) a full-time resident at their U.S. house, but travels a lot. Last year, the longest Stacy stayed in one place was three weeks; Jeff is envious of her long stay. The two of them often meet up around the world – Turks and Caicos, France, Uruguay, etc. – to spend time together.

Jeff has stayed in touch with NMT's Dr. Navid Mojtabai (Mineral Engineering Department); he's hired NMT graduates while he was in DRC and recently in Peru (*Andrew Gabrysiak*, *B.S. Mineral Engineering*, 2017); he also tries to attend the Society of Mineral Engineers (SME) conference every year.

The unexpected path from Marines to New Mexico Tech mining to global traveler has been a lifetime of adventure, and one that Jeff (and Stacy) wouldn't have missed for the world! Exciting times – and friendships developed that are still going strong.

After graduating with his MBA in 2001, Jeff worked as a consultant for Accenture, traveling constantly. For example, he would spend a month in Africa and a week at home, then a month in Indonesia and a week at home.

After three years, deciding with Stacy it would be nice for the whole family to regularly get to spend time together, he took a job in Phoenix, AZ, again with Phelps Dodge, assuring Stacy he wouldn't travel for work.

That lasted three days – he was working with the Development Group, and he was one of the very few familiar with the Democratic Repulic of the Congo (DRC) and other relevant regions.

In 2005-2006, the whole family moved to the DRC – the first Americans there. The kids went to a Belgian school and Stacy volunteered as a "chimp nurse" for orphaned chimpanzees.



Christmas 2008, at home in Lubumbashi, DRC, with their dog Lambeau

2020 ALUMNI EVENTS

FEBRUARY

Tucson Mineral and Gem Show & Alumni Reception

Reilly's Craft Pizza & drink February 15, 2020 6:30 p.m.

SME Conference in Phoenix & Alumni Reception

Blue Hound Kitchen & Cocktails February 25, 2020 6:30 p.m.

MARCH

Washington D.C. Alumni Reception

The Hamilton March 3, 2020 6:00 p.m.

Bethesda Alumni Reception

Rock Bottom March 4, 2020 6:00 p.m.

Baltimore Alumni Reception

Chesapeake Resturant at BMI
Airport Marriott
March 5, 2020
6:00 p.m.

Days of Science & Exploration at Sierrita Mine Tour

March 6, 2020 Dr. Navid Mojtabai

Death Valley Alumni Trip

March 11th - 15th , 2020 Dr. Bill Chavez & Lisa Majkowski

Ridgecrest Alumni Dinner Casey's Steaks & BBQ

March 20, 2020 6:30 p.m.

APRIL

Houston Alumni Dinner

John Crum Residence April 8, 2020 6:00 p.m.

Days of Science & Exploration at Seattle Wine Tour

April 4, 2020 Dr. Fred Phillips

Reno Alumni Dinner The Depot Craft Brewery Distillery

April 17, 2020 6:00 p.m.

Portland Alumni Reception

Mother's Bistro April 20, 2020 6:00 p.m.

Seattle Alumni Reception

Elephant & Castle April 22, 2020 6:00 p.m.

Atlanta Alumni Dinner

Manuel's Tavern - Eagle Nest room April 23, 2020 6:30 p.m.

MAY

Denver Alumni Dinner

May 1, 2020 6:30 p.m.

NMT-Alumni Night @ Isotopes

May 1, 2020

New Zealand Alumni Trip

May 13-22, 2020 Dr. Bruce Harrison

Graduation & Alumni Reception

NMT- Bureau of Geology May 8th 4:00 - 6:00 p.m.

Minneapolis Alumni Dinner TBD

JUNE

Salt Lake City Alumni Dinner TBD

6:00 p.m.

Elko Alumni Dinner

Blind Onion June 6, 2020 6:00 p.m.

Boston Alumni Dinner

June 12, 2020 6:00 p.m.

United New Mexico Soccer Game & Tailgate

June 13, 2020

Days of Science & Exploration at Indiana Dunes State Park Star Gazing with Dr. Frank Etscorn

June 20, 2020

NMT-Alumni Night @ Isotopes June 17, 2020

No hone to see you at m

We hope to see you at more events this year!

For an updated list of events and how to RSVP go to:

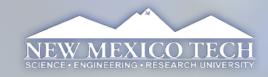
advancement.nmt.edu/events

For suggested places for events email us @

advancement@nmt.edu

or call us at:

575.835.5352



ALUMNI RECEPTIONS...WHY NOT HOLD ONE?

Nancy Bilderbeck, Alumna Writer, London, England

What better way to stay connected with New Mexico Tech than meeting up with staff and former students? The Office for Advancement and Alumni Relations continues to develop their alumni database and are available to help connect you to former classmates and the wider Tech community.

With their help I set about organising the first United Kingdom Alumni reception, scheduled for August of 2019. The location: Central London! The Office for Advancement did all the grunt and grind work, contacting alumni in both the UK and Europe and advertising the event. A more general note was circulated to ALL alumni and this inspired a few "classmates from the past" to get in touch ... even though they were living elsewhere.

In addition to writing a brief note about the gathering, my job was to find a venue to hold a reception. Although many receptions are held at alumni homes, I opted for a local restaurant in the historic London neighbourhood where I live. Maida Vale is a listed conservation area, the birthplace of Alan Turing, and close to the famous Abbey Road crossing. There are historic pubs and independent restaurants galore so I was spoiled for choice!





I also chose to offer assistance to alumni regarding transportation and information about accommodation if needed.

Through discussion with the Office of Advancement it was decided that attendees should be reminded about the culinary delights of The Land of Enchantment. The resulting box of NMT-branded "Chile Swag" was sent from Socorro. PERFECT!?

Unfortunately "Her Majesty" must not be fond of the best of New Mexico. The package was intercepted by UK Customs and Excise and the "ransom" for release was made clear. For selfish reasons I did not question the "kidnappers" demands. The "ransom" was paid and a few days later a box of goodies arrived at my London flat. Not even the Queen was going to interfere with our reception fun!

In the end we had a grand day, starting with lunch and ending with drinks at a local pub. Nine alumni (see photo) spanning 40 YEARS came along. Partners and children added to the experience! Of course stories were exchanged, ranging from first impressions of Tech and Socorro to classic 49ers antics.

We were fortunate to be joined by Colleen Foster, Director of Advancement, who flew over with a suitcase of frozen San Antonio green chile – HOT! Such a welcome treat in a country which is a green chile wasteland.

Should you want to organise a reunion in your "neighbourhood" I encourage you to contact the NMT Office for Advancement. They will support you throughout the event: searching their database for alumni in your area, publicizing your event ... and maybe even bringing along some "Chile Swag!"



(L to R) Peter Barber with daughter Audrey Kowtha-Barber, Nancy Bilderbeck (1976), Mark Tucker (1987), Anuradha Kowtha (front, 2002), Brian Deen (back, 1988), Gareth Jones (2018), Mitch Bilderbeck (1977), Mark Blackman (1990), and Ben Crowder (2007)

Check the Alumni Events Calendar in this issue and on the NMT Advancement website at https://www.nmt.edu/advancement/index.php for other upcoming alumni receptions and Days of Science & Engineering tours!



John Hubert Carman

M.S. Earth Science, 1960

arman, John Hubert of St. Cloud, FL died December 8, 2016 in Hospice Carein Madison, FL after a long illness.

John was born on September 27, 1935 in Pittsburgh, PA, . He graduated from Allegheny College in 1957. In high school and college John was frequently recognized for his accomplishments in many sports. He received All American honors for football in 1956 and in 1957 was named Allegheny College Athlete of the Year.

These accomplishments were particularly notable because of injuries John suffered early in his life. At the age of 6 his legs were severely burned in a fire. Prognosis at that time was that John might never walk again or that the use of his legs would be significantly reduced. Despite those predictions and years of recurring infections in the skin grafts on his legs, John's determination and resolve throughout his school years resulted in physical challenges repeatedly met and conquered.

After earning his M.S. at NMT, he received his Ph.D. in Geological Sciences from Pennsylvania State University, and some of his doctoral work was completed at Stanford University. John joined the Geology Department at the

University of Iowa in 1968. Early in his career he carried out research at Goddard Space Flight Center in Greenbelt, MD and The Geophysical Laboratory in Washington, D.C. In 1977 John left to pursue his own research interests, and he continued to work on various projects off and on until illness impeded further progress.

John is survived by his children: Jeffrey; Craig (Christine Annicella); Kate (James Robinson); and Glen (Ann Bradlow). He is also survived by 8 grandchildren and his former wives, Joyce Carman-Baldus and Carol Weeks.

John's love for the natural world, his respect for the land, and his desire to understand the intricacies of forces that formed the earth provided a spiritual source of meaning to him through the years. He will be dearly missed. Memorial donations may be directed to https://compeerjohnson-countyiowa.org/ or https://namijc.org/.



Patrick "Pat" Chavez

B.S. Mathematics and B.S. Physics, 1976

havez, Patrick "Pat" passed away on June 30, 2018 after a seven month battle with pancreatic cancer.

After NMT, followed by an M.S. in Applied Mathematics from Rensselaer Polytechnic Institute in 1977, he earned a Ph.D. in Computational Mathematics from Cornell University in 1983.

He was a respected computational analyst and Distinguished Member of Technical Staff at Sandia National Laboratories for many years. Pat also served as a program and line manager before retiring in 2005.

Pat was very active and curious about the world around him. He was a devoted bicyclist and could be seen almost every morning riding the entire Bosque Trail in Albuquerque. He was an avid fly

fisherman, calling the San Juan River his home waters. Pat loved to travel and saw most of the U.S, Europe, Mexico, Iceland, Turkey, China, Peru, India, and Thailand. He also enjoyed his post-retirement gig as a "standardized patient" for the UNM School of Medicine.

Pat was a loving husband, father, and Papa. He is survived by his wife of 43 years, Sandra (*B.S. Chemistry, 1976*), their daughters Luisa (Gabriel) Massey and Tricia (Devin) Brown, and three grand-children.

The family requests donations be made to Cancer Services of New Mexico (http://cancerservicesnm.org/new/).

Dr. Navid Mojtabai (Chair of Mineral Engineering) submitted the following In Memoriam along with some comments. "Edward and I were very close friends when we were freshmen at NMT, and the friendship continued. We used to live in the basement in Fitch Hall when we were freshmen with a lot of crazy memories. He was a top student and a great man. He always had a passion to be firefighter, and it was what he did after he finished his engineering degree. He was only one day younger than me."



Edward P. Clinton

B.S. Metallurgical Engineering, 1982

lintom, Edward P. of Patterson, NY, died September 25, 2019 at his home. Edward was born March 28, 1960 in New Rochelle, NY to

James and Elenor (Gieger) Clinton.

A graduate of Mamaroneck High School, Edward then graduated with his B.S.;rom NMT. Edward married the love of his life, Tami Connolly, on May 27, 1989 in Mamaroneck, NY.

Edward was a Captain with the Scarsdale Fire Department for 20 years. During this time he began a new profession as an exterminator with Sound Shore Pest Control in Larchmont, NY.

Following his years as a firefighter, Edward continued his work as an exterminator until he found himself learning the ropes in the lumber department at the Home Depot in Brewster, NY.

Edward was a volunteer with the

Town of Mamaroneck Ambulance Corps and Fire Department.

He greatly enjoyed his many cats and dogs through the years. Edward took special care tending to his gardens which surrounded his home.

Besides his wife Tami of 30 years, Edward is survived by his brother Peter (Ruth) Clinton; his 3 sistersin-law, Dawn (Robert) Fischer, Hollie (Tommy) Nordmann, and Gay (Frank) Braiotta; his brotherin-law Todd (Kristine) Connolly; and many nieces and nephews.

Contributions in Edward's memory may be made to the Putnam Humane Society, PO Box 297, Carmel, NY 10512.



Kimberly "Kim" Filand

B.S. Chemistry, 1977 and B.S. Technical Communication, 1986 iland, Kimberly "Kim"
passed away peacefully on
August 25, 2019 in Las Cruces, NM. Born in Phoenix,
AZ in 1954, she graduated valedictorian from Phoenix Christian
High School and then attended
New Mexico Tech.

After graduating with her second B.S., she began her career as a technical writer in the New Mexico Tech Public Information Office. In 1988 she was promoted to Director, and then in 1999 she was promoted to Assistant Registrar.

In 2005, she relocated to New Mexico State University as Assistant Registrar and Banner Support. She worked there until her retirement in 2015.

Kim loved dogs and horses, and was able to fulfill her lifelong dream of having horses while she lived in Socorro. She was also a very accomplished seamstress, and loved crafting jewelry, cards and quilted projects. Kim was very active in the Methodist churches in Socorro and Las Cruces.

Kim is survived by her brother, Kevin Johnston, and three cousins. She is preceded in death by her parents, Earl and Delores Johnston.

In lieu of flowers, donations may be made to the University United Methodist Church of Las Cruces, 2000 Locust Street, Las Cruces, NM 88001.



Kenneth Arthur Grace

M.S. Geology, 1965

race, Kenneth Arthur was born March 11, 1936; he passed away suddenly April 25, 2019, off the coast of Gran Canaria aboard the Queen Victoria. He was doing what he loved, traveling the world, meeting new people, and enjoying the moment. Ken was an adventurer who began traveling as a young man from South Africa.

He attended the University of Cape Town, and then came to New Mexico Tech on a Fulbright scholarship, where he received his M.S. and met and married Midge Grace.

After many years with Kennecott Corporation, working in Canada, the U.S, Africa, and the Caribbean, he joined the consulting firm of Robertson and Associates in Golden, CO.

In 1988 he became one of the founders of Micon International Limited, a mining consulting firm headquartered in Toronto. His consulting assignments took him to the far reaches of the world. Ken was a member of many professional associations and highly regarded in his field. He was a registered Professional Engineer and a Fellow in the Society of Economic Geologists.

Ken married the love of his life, Susan, in 1980 and was married for 37 years until her passing in 2017. He is survived by his daughter, Deirdre Wells (Mark); his grandchild, Dylan Grace-Wells; as well as brothers, Ronald (June) and Michael (Noeline); sister Patricia Marshall (Gavin); his brother-inlaw, Brian Bailey and his wife, Debra, and their daughter, Jessica Steele (James); and numerous nephews, nieces, grand-nephews, and grand-nieces.



Alvin Francis
Jones

Bachelor of General Studies, 1966

ones, Alvin Francis, a father, lifelong New Mexican, judge, lawyer, and devoted community man, died on May 28, 2019 at age 74. He passed in an accident riding his bicycle, preparing for yet another Milk Man triathlon.

He was born in Albuquerque, NM

in 1944 to Alvin Franklin Jones, an airplane mechanic with the Army Air Corps, and Edna Crow, a secretary. Because of Alvin's asthma, the family moved to Holloman Airforce Base where doctors said he would breathe easier in the dry air.

He spent most of his childhood in Alamogordo, and then earned his degree from NMT before receiving a Juris Doctor from the University of New Mexico. There, he met a lovely young woman named Linda on a blind date; she would become the love of his life. They married three months later and in 2018 celebrated their 50th wedding anniversary.

Alvin will be remembered for his career as a lawyer in front of, and as a judge behind, the bench, for his devotion as a loving father, and for his commitment to lifelong public service.

His legal career spanned five decades. He began in private practice and was later appointed to New Mexico's 5th Judicial District in Roswell. He served for 19 years, many as Chief Judge.

Of his time on the bench, he would say he was most proud of his work founding the local chapters of Chavez County Court Appointed Special Advocates (CASA), a non-profit which helps vulnerable children navigate the state legal system, and Character Counts, an organization which teaches ethics and character lessons in the public schools.

After retiring from the bench, Alvin joined Hennighausen & Olsen as a partner where he represented communities and farmers' cooperatives in water law. All the while, he kept a pro bono practice for a variety of clients and stayed on with many community organizations. Among his favorites was tutoring math for adults working toward their GED.

To his family, Alvin was a devoted father with eclectic hobbies and a love of books. He was an avid pri-

vate aviator, and Major in the Civil Air Patrol, who loved taking care of and flying his Beech Bonanza. He was an ambitious sailor of small and medium boats, a cautious skier, occasional car racer, and, as he would often say, a "completer" of triathlons.

To his children he was a quiet, but insistent, father who emphasized intellectual and spiritual fulfillment over professional achievement. To his wife, she simply says, "he was the love of my life."

He is survived by his wife Linda Jones, a nurse practitioner, his four children, and three grandchildren

The eldest of his children, Abraham (*B.S. Physics, 199*1), is an accomplished mechanical engineer. The second eldest, Margarita, is a special education teacher with three beautiful children of her own, Elijah, Nicholas, and Bethany. His third eldest, Lila, followed her father into law. The youngest,

Trevor, is a physician and researcher.

Alvin is also survived by his sonsin-law Joshua Schroeder and Edward Binkley, his sister Tessa Daylong, three nieces, and many grand-nieces and nephews.

The family requests donations be made to Character Counts! in Chaves County, which can be arranged by contacting Tim Fuller, PO Box 999, Roswell, NM 88202.



Jonathan Reid Mowrer

B.S. Mathematics, 1974 and Master of Science Teaching, 1990 owrer, Jonathan Reid, J.D., a long-time resident of Meadow Lake, passed away on March 5, 2019. He spent many years working with the Los Lunas (NM) school district as a teacher and also worked at UNM-Valencia Campus as a professor of Mathematics.

Jonathan retired from teaching and enjoyed low-key days at home, spending time with his wife, camping, fishing and the peacefulness of being outdoors. He was devoted to learning; this touched all aspects of his life, whether it was achieving his many degrees, teaching, or developing the skills to be the ultimate do-it-yourselfer.

Jonathan had a passion for service to the people in his community and used his many gifts to bless all those in his life. He devoted himself to mentoring his students, helping those in need, sharing his faith and love of the lord to reach people's hearts, and was a long-time contributor to the News Bulletin.

He is preceded in death by his parents, Sid and Marilyn Mowrer. He is survived by Maria Mowrer, his wife of 21 years, son Artimus (Megan) Mowrer, daughter Sarah (Anthony) Martinez; four grand-children, sister Michelle Kucic, and many nephews and nieces.



Thomas "Tom" Arthur Myers

B.A. Mathematics, 1966

yers, Thomas "Tom"
Arthur was born on
January 12, 1945, in Long
Branch, N.J., and passed
away on May 21, 2019.

Tom grew up in New Jersey and later traveled to New Mexico to earn a BA at NMT. He then went on to Hawaii where he became an avid big wave surfer. I

In 1973, Tom settled in Colorado where he married and earned another BA from UNC in accounting. In 1978, he became a certified public accountant and, in 1979, launched TA Myers & Co., a CPA firm that specialized in forensic accounting and tax planning for

foreign investments.

Among the highlights of Tom's career: authored multiple books on lending, asset management and financial reform; testified at the request of the U.S. Congress on banking regulatory reform and fraud in the financial system; taught courses on money laundering and fraud to various law enforcement entities including the FBI, the U.S. Secret Service and Department of Justice. At the pinnacle of his career, Tom was an expert witness in many class action lawsuits that led to successful verdicts.

In his leisure time, Tom was an

avid cyclist and in 1992 came in third at the Hunstman Senior Games in St. George Utah. Tom also enjoyed mixed martial arts and boxing.

He was preceded in death by his

parents Gladys Kampf and Louis Myers and his siblings, Stephen Myers and Susan Myers. He is survived by his wife, Rosalie "Rose" Myers (Torrez), daughters Rhonda Moore (Benavidez), Rhoda Schultz (Craig) and Kirsten Myers-Blake (Adam), 11 grandchildren and 5 great-grandchildren.

It was Tom's wish to ensure that all who knew him know he leaves his beloved family and friends with gratitude and everlasting love.



Larry Richard Oliver

B.S. Petroleum Engineering, 1957

liver, Larry Richard of Magnolia, TX went to be with the Lord on August 6, 2019. He passed away at his home at the age of 84. Lar-

ry was born on February 10, 1935 in Merryville, MO.

Larry's career began with Mobile Oil; he moved on to Del High Taylor and then Tenneco Oil and Gas where he worked for over 25 years. His last assignment under the Tenneco umbrella was as President of Operators, Inc. which was a training center for the entire industry. After leaving Tenneco in the early 1980's, he started Energy Operators, LLP, an oil and gas consulting company which he ran until his retirement. His son, Sam, took over and operated the company until his death.

Larry was an avid hunter, fisher and general outdoorsman. He was passionate about his family and attended each event, holiday, and vacation chronicling every moment with a smile behind his camera. He will be remembered

with love for his hard work, generous heart, sense of humor, his perpetual positive attitude and his red Christmas sport coat!

Larry married Dinah Eklund on November 30, 1957. They were married for 61 years and had two children, four grandchildren, and one great grandchild.

Larry is preceded in death by his parents Oscar and Wilma Oliver, his brother Lance, and his son Samuel. Larry is survived by his wife, Dinah Eklund Oliver, his daughter, Carla Oliver Smiley, his brother Shawn, grandchildren Chasity Lawrie Gaskin, Shane Lawrie, Katie Oliver, and Jamie Oliver Scholhamer, and one great grandchild, Teagan Gaskin.

The family requests that memorial donations be made to St. Jude Children's Hospital (https://www.stjude.org/).



Paul R. O'Neill, Jr.

B.S. Geophysics and B.S. Physics, 1973 'Neill, Paul R., Jr. died at The Ohio State University Medical Center on January 16, 2019. He was born in Mt. Vernon, OH on July 20, 1950 to the late Paul and Patricia (Smith) O'Neill.

Paul was retired from PRO Exploration where he was a geophysical consultant and traveled quite extensively for his job. He spent a recent year in Newark caring for his mother, Patricia, prior to her death in October 2018.

In addition to his parents, Paul was preceded in death by his brother, Stephen Francis Xavier O'Neill, and sister, Sr. Patricia Jane Marie S.C..

He is survived by his brother Ed-

mund S. O'Neill, several cousins, and nieces and nephews.

To share your memory of Paul or leave a condolence for the family, please visit <u>www.reedegan.com</u>.

Joe Kmek (B.S. Geology, 1972) notified us of Paul O'Neill's passing and included some photos and his memories of their friendship:

"I was floored when I learned of Paul's passing. My good friend for 50 years, Paul was an enthusiastic scientist, oil explorer, and outdoor enthusiast. His Catholic faith was unwavering. Most people spend four years in college earning one degree. Paul earned two, a BS each in Physics and Geophysics.

Paul and I met while attending

Bergen Community College in Paramus, NJ and we shared lab assistant duties with the chemistry and biology departments. It was here that I learned of Paul's intelligence, quick wit, and sense of humor.

After graduating from BCC, Paul talked me into joining him by transferring to New Mexico Tech to finish up my four-year Geology curriculum. It was the best advice I could have received because the education matured me and cemented my career in Geology. I thank Paul for that mentoring.

He was always willing to lend a hand and offer constructive advice. We crossed paths in the oil patch throughout our careers and stayed in touch, albeit less so in recent years.



Paul lived in many places during his career as an exploration geophysicist – Texas (Dallas, Fort Worth, San Antonio), California (Bakersfield), Ecuador, and Kuwait. His apartment in Kuwait was ransacked by Sadam Hussien's army in 1990. Fortunately he was out of country on business during the invasion.

We spent countless hours together flying airplanes, skiing, fishing, scuba diving all over the world, sailing his Nacra and windsurfer, backpacking in Wilderness areas, working together on exploration projects at Mobil Oil Corp., and, of course, barbecuing and drinking lots of beer. His sense of humor entertained many aboard our dive boat trips. I miss him dearly. Rest in peace my dear friend."



Hubert "Hugh" Schickel

B.S. Mining Engineering, 1953

chickel, Hubert ended one adventure and began his next on June 16, 2019. Born September 3, 1927 in Stanford, CT, his father moved the family to Ithaca, NY to take a professorship at Cornell University.

War fever gripped the country by 1941 and Hugh spent the next 4 years trying to enlist and was finally successful in getting his dad to allow him to leave high school and sign up at the age of 17.

On August 1, 1945 he was on a marine troop transport ship heading for the invasion of Japan. He returned stateside a year after the end of the war and, thanks to the GI Bill, attended St. Bonaventure College for his pre-engineering classes before receiving his B.S from the (then) New Mexico School of Mines in 1953.

He attempted to fulfill his flying dream with the three services then in existence as an aviation officer but was not allowed to fly due to the heightened eyesight requirements for the new military aircraft. In search of work to scratch his flying itch he went to Malone, NY in 1954 after hearing of the opportunities that the building of the St. Lawrence Seaway would bring. It was there that the next phase of his life began including the establishment of the 140 acre Schickel homestead.

In order to fund his flying lessons he started working for J&J Development building homes. He had found his calling and after a few short years the owner of the company found Hugh in his workshop building his own toolbox. It was the birth of what would years later became a major contracting company.

By 1960, Hugh felt a bit of wanderlust and signed on as a deck hand with a research vessel headed for the South Pacific for a year. After sailing around the world he came back to Malone and really got down to business. H Schickel General Contracting and the H Schickel Air Taxi Service were born.

The air taxi service was a little too tame for Hugh - he would leave home for weeks at a time to work for various crop dusting outfits to learn aerobatic flight.

The contracting business was the one that took flight as he transitioned from residential housing to larger commercial buildings and structures.

In 1967 he met Deanna Hazelton. They were walking down the aisle a short time later on July 13, 1967. She was by his side for the next 52 years; they were blessed with 5 children.

Hugh was a strong believer in athletics and education. He sent all five kids to college and built horse arenas and hockey rinks across the homestead. He was an avid supporter of the Malone community.

There were not many things on this Earth that Hugh wasn't certified to drive, fly, or fire. He had a commercial truckers license, an aircraft license (with commercial, instrumental, multi-engine, and helicopter ratings). He was licensed for scuba diving, parachuting, and handguns. Feeling

incomplete he acquired his motorcycle license in his mid 80s.

Hugh was an avid aviator until the very end. He was still participating in airshows commercially and giving free airshows over the Westville hayfields to any who cared to look up at the right time of day.

Hugh is survived by his wife of 52 years, Deanna; their children Hugh Schickel and partner Stacey Whiteside, Michelle Perry, Jeff Schickel, Joe Schickel and wife Natalie, and Deanna Strong and husband Nate; nine grandchildren and one

great grandson; siblings Jack, Lou, Jerry, and Marie Rottshafer; and numerous nieces and nephews.

Others fondly remembering Hugh include honorary family member Brian Trombley, Hugh's many friends in the Malone community, AND last but certainly not least his loyal co-pilot Luna

He was predeceased by his parents, two sisters, and two brothers. Donations may be made in his memory to Hospice of the North Country or St Judes Children's Hospital.

UNEXPECTED ALUM



While in Coeur D'Alene, ID, in July 2019 for alumni visits, Colleen Foster (Director of NMT Advancement) turned the corner and saw this unknown guy wearing a New Mexico Tech t-shirt

Of course she had to talk to him.

Frederick "Fritz" Wolff (B.S. Mining Engineering, 1960) was there with his wife Mary. They live in Olympia but travel to Coeur D'Alene once a year - this time, unbeknowst to them, at the same time as a Tech employee.



THE LAST WORD Ryan Schwingle

Ryan Schwingle (*B.S. 2014 and M.S. December 2019, Electrical Engineering*) was maxing out on engineering and science credits at Diablo Valley College in northern California in the mid-2000s. At the same time, he was a 19-year-old working as a Broadcast Engineer for a number of radio stations, including KGO, the #1 radio station in the #3 market in the US. His boss was an ex-Navy chief who told him (and meant it) that "it's okay to break stuff, and fail – that's how we learn."

His advisors at Diablo pushed him to transfer to another school to complete a degree – he'd taken all available classes in geology, astronomy, AutoCAD, electronics, and speech. He had applied and been accepted to San Jose State University, but housing costs were prohibitive, and the buzz of the Bay Area was an increasingly uncomfortable fit. A geology professor asked if he'd heard of New Mexico Tech, stating that it was affordable, even for out-of-state students.

He and a friend (who was interested in Civil or Mining Engineering) arranged for a campus tour of NMT. They rented a Prius and planned a 3-day weekend trip. They toured NMT, then drove to Colorado and toured the School of Mines there, then drove home, putting 3,000 miles on the Prius. They both decided that New Mexico Tech was the school for them. In September 2008 they began planning the move to Socorro and started classes at NMT in January 2009.

While an undergraduate in Electrical Engineering, Ryan worked for Dr. Mike Pullin (Chemistry) on water quality instrumentation research – actual hands-on research, and one of Ryan's favorite memories. Later in his undergraduate years, Ryan got to work for Dr. Scott Teare (Optics) on dielectric testing of explosives. Ryan was also General Manager of NMT's KTEK radio station for a year. During the winter break between semesters he'd go back to California for short contracts with his previous employers.

The summer between his B.S. and M.S. he took a STEM internship with TRAX International at White Sands. At the end of the summer, TRAX asked him to work at least part-time while continuing his academic pursuits. Ryan became a Project Engineer (part-time) in the Fall of 2015 working out of Stallion Range; he switched to full-time once he'd finished his M.S. coursework.

There have been recent changes - married 18 months, successfully defended his thesis, completed his M.S. in December 2019, began working for the Air Force Research Laboratory in January 2020.



Ryan thinks New Mexico is unlike any other place, and he loves it here. He's become established in the community – for example, as an undergraduate, he became a volunteer firefighter with the San Antonio Fire District. While his duties there take up quite a bit of his time, he considers it "fun that means something.

Ryan encourages all New Mexico Tech students to become more involved with, and give to, their communities – both on and off campus. He believes engineers are resource allocators; people who put engineering and scientific principles into action and can make a valuable difference.



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