FROM MACHU PICCHU TO THE ZAMBESI RIVER

More so than anything else, Neil has enjoyed interacting with students — especially on field trips. The student’s curiosity, fearlessness (of things new and different) and enthusiasm keeps him feeling much younger than he looks.

Neil has been fortunate in that he’s had the opportunity to take Missouri S&T students on literally hundreds of externally funded research-related field trips. Most of these trips involved the acquisition of geophysical imaging data in support of various projects, including the delineation of karst features, mapping of flow pathways through leaking earth-fill dams, locating buried utilities, determining the engineering properties of soil and rock, mapping previously mined ground, assessing the condition of pavement and bridge decks, locating archeological features, mapping subsurface lithology, etc. Our student field crews have been baked in the hot summer sun, frozen in the dead of winter, drowned in the spring rains, driven half-crazy by poison ivy, pestered by chiggers and ticks, and frustrated by the occasional equipment malfunction. But we’ve had educational fun!

Neil has also been fortunate in that he’s also had the opportunity to take groups of students on numerous class and/or research-related field trips abroad. We’ve conducted archeological investigations in Luxor Egypt, driven across the magnificently desolate Sinai Peninsula, marveled at magnificent remnants of Machu Picchu in Peru, counted the skulls in unmarked burial cairns in the Andes, hiked Table Mountain in beautiful Cape Town, watched Great White Sharks breach the surface of the Indian Ocean, been awed by prides of lions and packs of wild dogs in Kruger Park, been chased by elephants, white-water rafted the crocodile-infested Zambesi River downstream of Victoria Falls, and so much more. Each trip has been an adventure. Every student has been special.

Neil’s great hope is that students who accompanied him on field trips at home and abroad never lose their curiosity, fearlessness and enthusiasm.
MAERZ TO RETIRE AFTER 21 YEARS OF SERVICE TO RMERC

Norbert Maerz was hired Jan. 1, 1998, as a senior investigator in the Rock Mechanics and Explosive Research Center. He was simultaneously appointed as an assistance professor in geological engineering. In 2002 Maerz developed and administered the online master’s program in geotechnics, which he has overseen until now. He received tenure and promotion to associate professor in 2004. In 2006 Maerz was appointed as program head in geological engineering until 2015. In 2015 he was promoted to full professor and in 2016 appointed as director of the Rock Mechanics and Explosives Research Center.

As a researcher, Maerz executed 37 funded research contracts valued at $6,137,074 ($2,729,363 his share). Of these four were NSF awards and Maerz was PI on 29 of these awards. Maerz published over 135 papers during his career at Missouri S&T. One research project resulted in an invention disclosure leading to the formation of a small spinoff company. He maintained above average teaching ratings and received two outstanding teaching commendation awards, and an experiential learning award.

As the founder of the geotechnics online program, Maerz developed the program using his own grant release and SRI return funds for the initial marketing costs. The program has about 55 students taking classes at any given semester. It brings $474,299 (2017) in tuition revenue to the university every year. Maerz also got approval for only the second distance education Ph. D. at Missouri S&T.

As program head for geological engineering, he developed and executed targeted recruiting and marketing strategies resulting increased student enrolment from 61 to 311 students. He presided over the rapid growth of the FLW master’s degree, and implemented ABET outcomes and objects. In two ABET review cycles, geological engineering had the least number of weaknesses (1, 2008) and concerns (2, 2014) of all the engineering programs at Missouri S&T.

As center director, Maerz revitalized the RMERC infrastructure and expanded the center membership to 20 investigators from seven academic programs.

TORGASHOV JOINS S&T

Please welcome Evgeniy Torgashov, our newest researcher:

Torgashov is a research assistant professor in geosciences and geological engineering and petroleum engineering.

WE’RE HERE TO HELP MEET YOUR NEEDS.

Rock Mechanics and Explosives Research Center has the mechanical support you need to complete your next project, including milling, drilling, welding, design, fabrication and implementation. Give us a call at 573-341-4750 or 573-341-4365 to discuss.

ROCK ROOM TURNED INTO RESEARCH LAB (MULLIGAN)
GALECKI STEPS DOWN AFTER ALMOST 35 YEARS

In January 1985, Greg Galecki came to RMERC as a visiting professor from Politechnila Wroclawska, today known as Wroclaw University of Technology (WUT) in Poland. Initially, he thought of spending a year or two doing research on waterjets towards the required by European Union standards for degree of doctor of engineering, known as habilitation (jokingly called rehabilitation). But it turned out to be almost 35 years. In 1985 he had no idea that he would contribute to so many areas and for a long time. Today he is 35 years more experienced than he was at the time of his arrival.

He remembers his first waterjet conference appearance in 1987, when he presented a short paper but stuffed with a lot of data. The value of his research findings was immediately recognized by Water Jet Technology Association (WJTA) colleagues and he was accepted into close circles. This event ended his time of being nobody in a country. He still is very much involved in WJTA activities with their endless call for service. In recognition of his research in waterjet technology over a long period, he was elected to the Water Jet Technology Association board of directors for the 2007-11 term.

His involvement in research allowed him to get into a research assistant professorship and in 2003, he was promoted to research associate professor. In 2010 he added a teaching role, becoming a tenure track associate professor of mining and nuclear engineering. His tenure was granted in 2013. Today, after almost 35 years on Rolla campus, he performs Grexit from this position. Although the department granted him the emeritus status, he refused the retirement party held by his home department. He is a really simple man.

When asked, he always answers: my strength – people; my weakness – people. He was very moved receiving a plaque engraved by his tool of choice — waterjet — in copper to thank you him for the services he provided to Rolla campus.

RESEARCH HIGHLIGHT: FORENSICS (JOHNSON)

GRADUATING STUDENTS

Min Gi Seo of South Korea received her master of science degree in explosives engineering from S&T in spring 2019. She earned her bachelor of science degree in petroleum engineering from the University of Alberta, Canada in 2010. She will continue at S&T to pursue her Ph.D. Her topic is “Innovative Method to Measure Velocity of Detonation by Measuring Electromagnetic Pulse.”

Chen Yuan of China received his master of science degree in petroleum engineering from S&T in spring 2019. His thesis topic was “Computational Fluid Dynamics Modeling of Proppant Static Settling Velocity in High Viscosity Friction Reducers.” He earned his bachelor of science degree in geological engineering from the University of Xi’an Shiyan.

Ricardo Javier Romero-Ramirez of Puerto Rico received his doctoral degree in geological engineering from S&T in spring 2019. His thesis topic was “Development of LIDAR-Assisted Terrestrial Radar Interferometry for Precursory Rock Movement Detection.” He earned his bachelor of science degree in civil engineering in 1993 and his ME degree in civil engineering in 1996 from the University of Puerto Rico. He also earned a Ph.D. in civil engineering in 2001 from Missouri S&T.
RESEARCH HIGHLIGHTS