

Summer 2018

Shillelagh

For members of the Missouri S&T Order of the Golden Shillelagh

newsletter



KRISTIE AND JOHN
GIBSON: PROVIDING A
HOME COURT ADVANTAGE

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WE'RE GOING PAPERLESS WITH E-RECEIPTS



BEGINNING JULY 1

Missouri S&T and the Miner Alumni Association are pleased to share that we'll be moving to electronic gift receipting beginning July 1, 2018. Now our donors will have the advantage of immediate, paperless receipts to acknowledge gifts.

This change will affect donors who have email addresses in our database. Those who do not will continue to receive paper receipts, although we encourage you to take advantage of e-receipting by providing your email address. If we have your email but you prefer to receive paper receipts, we're glad to provide them — just "opt out" of e-receipting by contacting **Patti Chism** at chismp@mst.edu or 573-341-4777.

No matter how we convey our gratitude, we thank you for making a difference.



Dear Friends,

This issue of the *Shillelagh* explores the spirit of giving through a number of personal stories. It's immensely gratifying to see how often a Missouri S&T education has made a difference in the lives of alumni — and how, in turn, these Miners and OGS members have made the choice to give back.

For **John Gibson**, EMgt'74, it was a basketball scholarship made possible by two influential coaches. For **Kristie (Capps) Gibson**, EMgt'74, it was an academic scholarship — and the desire to become an engineer at a time when women comprised only a small fraction of the Rolla student body.

A passion for model trains led **John Roam**, ME'69, to major in mechanical engineering, which launched his distinguished career in the oil and gas industry. For second-generation Miner **Hans K. Schmoldt**, GGph'72, GeoE'78, it was a love of rocks — and the influence of his late father, a founding member of the Order of the Golden Shillelagh. **Keith Wedge**, GGph'70, MS GGph'71, PhD GGph'73, earned three degrees at Rolla before spending more than 30 years in the military, bringing engineering expertise to Army commands around the world.

For the partners who stepped up to complete fundraising for the Advanced Construction and Materials Lab, it was a decision to support a project with the potential to transform the construction industry. After ARCO Construction Co. and a number of S&T alumni who work there made a major gift in support of the lab, another construction leader, Clayco Inc.,

donated \$2 million to complete fundraising for the project. We are deeply grateful to our industry partners, as well as the University of Missouri System, for championing this project.

This issue also shares news from campus. Our second annual TEDx Missouri S&T featured 10 dynamic speakers on a fascinating range of topics. The alumni association's 110th Best Ever St. Pat's Celebration swelled Pine Street with a sea of green. And giving back set the tone throughout April as Blue Key, Students Today, Alumni Tomorrow and many other student organizations proved that the philanthropic spirit is alive and well.

Looking ahead, I hope you'll mark your calendars for a new OGS event during MinerFest Homecoming Weekend on Oct. 12–13. Many members have expressed the desire to gather during the OGS Weekend "off year," so please join OGS for a reception at Hasselmann Alumni House on Saturday, Oct. 13. The reception will be followed by the Miner Alumni Association's dinner honoring our 2018 alumni award recipients. OGS members are invited to stay for dinner and help the alumni association raise the roof on Miner pride!

With gratitude,

Joan Nesbitt
Vice Chancellor for University Advancement

PROVIDING

A HOME COURT ADVANTAGE

Photos by Rick Ayre

Kristie (Capps) Gibson, EMgt'74, and John Gibson, EMgt'74, came to Rolla for one reason: to earn engineering degrees. Along the way they found another reason: each other.

They met in Thomas Jefferson Hall after a Miner basketball game — John was a team member. They married before their last semester, graduated together in 1974 with bachelor of science degrees in engineering management, and went to work as refinery engineers for Exxon Co. USA in Baytown, Texas.

Over the next four decades, from Texas to Oklahoma to London and back to Texas

and Oklahoma, the Gibsons remained connected to Missouri S&T and supported the university's athletic program. They were major donors to Miner Dome dedicated in 2010 and the artificial turf installed on the stadium and intramural fields in 2014.

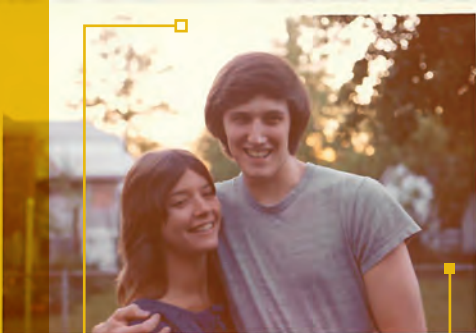
Now they have stepped forward with a \$1 million gift in support of a major arena renovation in the Gale Bullman Building. Their gift will fund enhancements to the arena where S&T's NCAA Division II men's and women's basketball and women's volleyball teams play. Renovations will include new flooring, practice and game goal systems, a public address system, and acoustics. The arena also serves as the site for commencement, guest lectures and other university events.

"Basketball was an important part of my life," says John, who grew up in Kansas City, Kan., and played for high school and junior

college teams. "My athletic experience was a major contributor to the formation of my personality and values." After earning his associate's degree at Kansas City Kansas Community College, he received athletic scholarship offers from universities, but none offered engineering degrees.

"My coach, Walt Shublom, knew I wanted an engineering degree so he called Coach (Billy) Key," says John. Key was Rolla's head basketball coach at that time. "Coach Key came to Kansas City to watch me play and then offered me a scholarship. If I didn't have those two men in my life, I'm not sure where I'd be today."

Kristie, who grew up in Dexter, Mo., came to Rolla on a scholarship in chemical engineering but changed her major to engineering management her senior year so she could graduate with John.



Kristie (Capps) Gibson and John Gibson in 1974 during their senior year at Missouri S&T. Photo courtesy of the Gibsons.

"Kristie and I started giving back because we wanted S&T players to have the best possible experience as athletes and students."





"I have always valued my experiences at Rolla and especially the education I received," says Kristie. "It served me well throughout my career in the industry and I hope, by my example, I perhaps inspired other young women to pursue the engineering profession. We are very fortunate to be able to enhance the experience of current and future student-athletes attending S&T."

After launching their careers with Exxon, the Gibsons joined Bartlesville, Okla.-based Phillips Petroleum Co., where John spent 18 years in a number of leadership positions in natural gas, natural gas liquids, and exploration and production. Kristie worked for Phillips as a process engineer designing natural gas plants, then as a gas buyer and manager of the natural gas supply division, until retiring to focus on raising their daughter, Katie.

John was executive vice president of Houston-based Koch Energy before he was named president of energy for ONEOK, a \$25 billion Fortune 500 company based in Tulsa, Okla., and one of the largest midstream service providers in the United States. He eventually became chairman,

"Basketball was an important part of my life. My athletic experience was a major contributor to the formation of my personality and values."

president and CEO of ONEOK and ONEOK Partners and served in that capacity until his retirement in 2014. He now serves as non-executive chairman.

"Missouri S&T is unique from a scholastic and athletic standpoint," says John. "I've always admired the university for making the intercollegiate athletic experience available to as many students as possible. Kristie and I started giving back because we wanted S&T players to have the best possible experience as athletes and students."

John is a former member of the S&T Board of Trustees, a 2011 inductee into

the Academy of Miner Athletics and a recipient of the Miner Alumni Association's Alumni Achievement Award. In 2015, he received the Dr. Charles Bertram Alumni Award of Distinction from the Great Lakes Valley Conference for his service and contributions to athletics.

"I remember my first time in the Bullman building in the early '70s," says John. "It was one of the nicest arenas in the MIAA (Mid-America Intercollegiate Athletics Association) at the time. I treasured that experience, and I want to help provide the same opportunity for others." ■

LEAVING A LEGACY THROUGH AN ENDOWED PROFESSORSHIP



John Roam, ME'69, says his destiny was determined the day he acquired his first model train.

"I won a Lionel train set in a drawing at Christmas in 1958 and became hooked on all things mechanical," he says.

Soon the boy who loved trains became a teenager obsessed with engines and cars. After earning an associate's degree from Missouri Southern State University in Joplin, he enrolled as a mechanical engineering major at Missouri S&T.

"I've often said that I have a degree in cars and trains," says Roam, who has chosen to give back to Missouri S&T by designating the university as a beneficiary of his IRA. The John and Deborah Roam Endowment for the Fundamentals of Energy Conversion currently provides support for thermodynamics and heat transfer lab equipment in mechanical and aerospace engineering. In the future, the endowment will fund a professorship in the department.

"I had several excellent instructors at Rolla," says Roam. "I remember Dr. **Lyle Rhea** starting at one end of a blackboard with the First Law of Thermodynamics and concluding at the other end with the formula for the speed of sound. That's the kind of teaching I hope to provide with the endowment."

Roam earned his bachelor's degree in mechanical engineering in 1969 and joined Sinclair Oil in Tulsa, Okla., which soon merged with ARCO. After serving in the U.S. Navy Civil Engineering Corps (the Seabees) in Vietnam as a company and detail commander, Roam rejoined ARCO in West Texas as a production foreman, and eventually led the company's Permian Basin production operations.

As ARCO's coal bed methane project director, he led the development of nearly 2 trillion cubic feet of gas (almost five times the reserves used to justify the project) in the San Juan Basin.

Roam married Odessa-native **Deborah Pittman** in 1982 and their son, Matthew,



Photo courtesy of the Roams

was born five years later. The family relocated to Alaska in 1990, when ARCO transferred Roam to Prudhoe Bay Field to lead a gas plant capacity expansion.

"The expansion required two nearly identical sealifts of equipment," says Roam. "It was important to start up the new equipment as quickly as possible. My team was responsible for most of this work. The first sealift took seven weeks from the landing of the barges to startup. We completed the second one in less than four weeks."

Roam retired from ARCO at age 48. Seven years later, he had the opportunity to take a six-month job with British Petroleum.

"One thing led to another and it turned into 10 years focused on artificial lift, facility design and mentoring," says Roam. When British Petroleum left the Permian Basin, Roam continued to work with a consulting firm. Then, through former ARCO coworkers (including an S&T graduate he recruited to ARCO 30 years earlier), Roam joined Midland-based

"I would not have enjoyed the life I have without my Rolla education."

Trey Resources, a small exploration and production company, as a consultant. He soon became vice president of operations and today serves as chief operating officer.

"The work is rewarding and involves recruiting and mentoring young engineers," says Roam. "Looking back on my career, I think the single greatest source of satisfaction is the people I've helped to develop. I would not have enjoyed the life I have without my Rolla education."



A SECOND-GENERATION MINER AND OGS MEMBER

Hans K. Schmoldt, GGph'72, GeoE'78, grew up in Oklahoma in the land of the Sooners and Cowboys, but the Miners were always part of his upbringing. His father,

Hans E. Schmoldt, ChE'44, made sure of that.

"I visited Rolla with my father as a junior in high school," says Schmoldt. "Dad convinced me that a Rolla degree would be better than an OU or OSU degree."

The second-generation Miner pursued degrees in geology and geophysics and geological engineering.

"I chose geology because I liked rocks and I wasn't required to take differential equations back then," he says. "I chose geological engineering so that I could work as an engineer for my father's company, Schmoldt Engineering."

As a student, Schmoldt was active in Delta Sigma Phi fraternity, and he says his best memories are of party weekends, floating "the beautiful Missouri streams and rivers near Rolla," and road trips to football games.

"I was social chairman of my fraternity as a freshman," he says. "We raised enough money to charter a bus to Cape Girardeau, Mo., to watch our football team lose to Southeast Missouri State. We had prearranged parties with sororities after the game, so all was not lost."

Schmoldt founded Anode Systems Co. in Grand Junction, Colo., in 1984. Over the past three decades, the company has designed and installed cathodic protection (CP) systems for customers throughout the United States, Canada and Mexico. CP systems are corrosion controls primarily used to protect underground oil and gas pipelines and storage tanks.

The corrosion controls are also used by other industries: gas and water utility companies, irrigation districts, evaporative cooler manufacturers — and even shipwreck conservators in maritime museums.



Photos by Cat Mayer

and no one had targeted some of the markets I did. I found a niche and filled it."

A Colorado resident for more than three decades, Schmoldt has remained an active S&T alumnus. He received an Award of Professional Distinction in 1991 and was inducted into the Academy of Mines and Metallurgy in 2017.

He is also a second-generation member of the Order of the Golden Shillelagh (his father was a founding member), and he and his wife, **Kathy**, are long-time contributors to the university and the Miner Alumni Association. In addition to the Dr. John Rockaway Award presented annually to a student in geological engineering — and named for the former department chair who was Schmoldt's mentor — they recently established the Hans K. Schmoldt Rolla Rising Scholarship, which will provide students in any major with financial support.

"Rolla wasn't easy for me," says Schmoldt. "I was on scholastic probation two semesters in a row, but I eventually

"The university prepared me for competition in the workplace. Without this preparation, I wouldn't have been as successful in my business. I look at giving back as paying a debt."

"I chose to specialize in CP because I learned the fundamentals in high school and college working for Schmoldt Engineering," says Schmoldt. "No one was offering CP engineering and materials in western Colorado when I founded Anode Systems,

dug myself out. The university prepared me for competition in the workplace. Without this preparation, I wouldn't have been as successful in my business. I look at giving back as paying a debt." □

A GLOBAL LIFE COMES FULL CIRCLE

From a boy who liked rocks to a brigadier general, **Keith Wedge**, GGph'70, MS GGph'71, PhD GGph'73, has never forgotten what brought those two things together — his education at Missouri S&T.

But one of his proudest accomplishments is a far cry from geology or military strategy: it's being editor-in-chief of an award-winning yearbook — the 1969 *Rollamo*, which earned "All American" honors from the Associated Collegiate Press.

Wedge began collecting rocks and minerals on childhood vacations in Colorado, and it sparked a lifelong interest in geology. When it was time to consider college, the Missouri native's top choices were Missouri S&T and the Colorado School of Mines.

"It came down to cost and value," says Wedge. "Rolla offered several scholarships and other financial aid, much lower in-state tuition and the great reputation of the former Missouri School of Mines."

Wedge credits Pi Kappa Alpha fraternity with teaching him leadership skills — and introducing him to his future wife, **Bobbie**, a student at Missouri State University in Springfield, Mo.

"I was helping to establish a fraternity colony at what is now Missouri State," he says. "Bobbie and I were set up on a blind date. We were one of three marriages that resulted between my fraternity and her sorority."

After graduation and commissioning, Wedge delayed active duty to attend graduate school. He then launched a military career that spanned over 30 years of active and reserve duty on assignments that took him around the world.

"I never expected to remain in the Army for more than 30 years," says Wedge. "The interesting and challenging assignments kept me active."

His units used geophysics to help locate North Korean infiltration tunnels along the demilitarized zone, drilled for water in Egypt, built roads in Jordan, and supported other military operations in Saudi Arabia, Kuwait, Somalia, Haiti, Bosnia and Guatemala. His last assignment was at Fort Hood, Texas, where he commanded a brigade of more than 2,600 soldiers from units in five states.

While serving in the Army reserves, Wedge also worked for the Missouri Geological Survey, where he was chief of information services and later chief of geotechnical services.

As a military spouse, Bobbie, who holds a bachelor's degree in sociology and psychology from Missouri State, used her training to make a difference. She served on family support panels and counseled the families of deploying soldiers, helping them adjust to military life.

Wedge joined Advancia Corp. as a senior military analyst and program manager after his retirement in 2004. He also taught graduate classes in environmental management at Webster University's Fort Leonard Wood campus.

And, after three decades of globetrotting, the Wedges became full-time Rolla residents and volunteers for many organizations, including S&T's International Friends program.



"My success has been a direct result of my education. That's why Bobbie and I believe in investing in and encouraging young people."

"One November we had students from China, Turkey, Kuwait, Thailand and India at our home for a traditional Thanksgiving dinner," says Wedge. "We still maintain contact with the first international student we sponsored, **Waleed Al-Bazzaz**, PhD PetE'05, from Kuwait. Now his son, **Hussein Al-Bazzaz**, is an S&T student."

Wedge is treasurer of the Miner Alumni Association, president of the Pi Kappa Alpha Educational Foundation, and a past president of the Academy of Mines and Metallurgy. He and Bobbie are OGS members and recently established endowments that will support geological sciences, the alumni association and Pi Kappa Alpha.

"I was a student when the university celebrated its centennial in 1970," says Wedge. "I'm looking forward to our sesquicentennial in 2020. My success has been a direct result of my education. That's why Bobbie and I believe in investing in and encouraging young people."



EWB CHALLENGE NEARS \$1 MILLION GOAL

In 2016, the S&T chapter of Engineers Without Borders received the largest gift in its history: a \$500,000 challenge grant from the Montana Cahill Foundation, led by OGS members **Peggy Cahill Montana**, ChE'76, and **Duane Montana**, CE'75. To date, \$350,000 has been raised in response to the challenge, and OGS members have led the way with a \$250,000 gift from **David**, ME'93, and **Ann Heikkinen**, a \$50,000 challenge from **Rick Stephenson**, S&T professor emeritus of civil engineering and longtime advisor to the chapter, and a \$25,000 gift from **Bipin**, ChE'62, MS ChE'63, and **Linda Doshi**. For information on how you can help EWB meet the challenge, contact **Tory Verkamp** at verkampv@mst.edu or 573-341-6090.



A GREAT DAY FOR GREEN

There's no question what color ruled on March 17, when hundreds of Miners, family members and friends gathered in Rolla for the 110th Best Ever St. Pat's Celebration. The festivities kicked off with a pre-parade breakfast at Hasselmann Alumni House and continued with a pig roast and party worthy of the patron saint himself. View photos at photos.mst.edu.

YOUR INVITATION TO COMMENT ON ACCREDITATION

Missouri S&T is seeking comments about the university in preparation for our periodic evaluation by our regional accrediting agency, the Higher Learning Commission (HLC). S&T will host a visit by an HLC team Oct. 8-9. OGS members are invited to submit comments about S&T on HLC's website at hlcommission.org/comment. Comments may also be mailed to:

Public Comment on Missouri S&T
Higher Learning Commission
230 S. LaSalle St., Suite 7-500
Chicago, IL 60604-1411



GENEROUS PARTNERS COMPLETE FUNDRAISING FOR \$6.5 MILLION LAB EXPANSION

When it comes to building a better future, Missouri S&T is paving the way in construction materials and methods. Now, thanks to an investment from the University of Missouri System, major gifts from industry partners and support from alumni, S&T will break ground on the Advanced Construction and Materials Laboratory on Oct. 12.

The lab marks the final phase of a \$10.5 million initiative to advance S&T's leadership in infrastructure engineering. It will provide space for research on next-generation construction products and processes designed to be stronger, more secure and sustainable.

The lab received significant support in June 2017 when UM System President **Mun Y. Choi** committed \$1.6 million, identifying the project as a strategic investment for the entire system.

"Infrastructure is the foundation that connects the nation's businesses, communities and people, driving our

economy and improving our quality of life," says **Kamal H. Khayat**, the Vernon and Maralee Jones Professor of Civil Engineering. "Missouri S&T has strengths in this area and with further emphasis, we can become a best-in-class leader."

This past February, ARCO Construction Co., its founders and a number of S&T graduates employed there made a \$300,000 contribution to the lab.

"ARCO stepped up because Missouri S&T — and the S&T alumni who work at ARCO — have been a large part of our success," says **Dick Arnoldy**, CE'69, MS EMgt'73, retired chairman of the general

contracting company that he co-founded in 1992 with **Jeff Cook**, MS EMgt'94, president and chief executive officer. The company employs approximately 25 S&T alumni.

In April, Clayco Inc., one of the nation's largest privately owned real estate, architecture, engineering and construction companies, donated \$2 million, completing fundraising for the lab. The company employs about 35 S&T alumni, including chief operating officer and shareholder **Steve Sieckhaus**, CE'87, MS EMgt'94, and executive vice president and shareholder **Tom Sieckhaus**, CE'88. Their father, **Bob Sieckhaus**, CE'63, is also a Miner.

"Research on next-generation construction materials and methods will have a significant impact on how we design and build in the future," says Steve Sieckhaus. "Investing in this research is a strategic move that will benefit the entire industry."

A U.S. Department of Transportation grant for \$2.5 million in testing equipment completed the first phase of the initiative. The second phase added new faculty positions. The \$6.5 million Advanced Construction and Materials Lab will add 16,000 square feet to the existing high-bay structures lab in Butler-Carlton Hall.

"The lab will be one of the finest research centers in the world for construction materials and methods," says **Chris Maples**, S&T interim chancellor. "We are grateful to the University of Missouri System, ARCO, Clayco and the other contributors who



“Thanks to our donors’ generous support, Missouri S&T is rising to the challenge of building a stronger, smarter and safer infrastructure for a more sustainable future.”



funded the lab. This support positions Missouri S&T for unprecedented acceleration in an area of leadership and expertise.”

The Sunderland Foundation, the charitable arm of Ash Grove Cement Co., was also a major donor. Additional financial support from S&T’s College of Engineering and Computing and private gifts including a bequest from **James A. Heidman**, CE’65, MS CE’66, were instrumental to funding the lab.

“Thanks to our donors’ generous support, Missouri S&T is rising to the challenge of building a stronger, smarter and safer infrastructure for a more sustainable future,” says **Joel Burken**, Curators’ Distinguished Professor and chair of civil, architectural and environmental engineering.

For Tom Sieckhaus, the partnership is a long-term investment in a better future. “The impact of this research will affect the daily lives of millions for generations to come,” he says. □

Top: ARCO Construction Co. founders and partners stepped up to support the lab expansion. Company founders **Jeff Cook** and **Dick Arnoldy** (front row, center) gather here with ARCO partners and fellow Miners.

Bottom: Clayco Inc.’s corporate gift completed fundraising for the lab. Senior management executives **Steve Sieckhaus** (center) and **Tom Sieckhaus** (top right) are seen with some of the company’s employees who hold S&T degrees.



CHECK OUT MYMINERBOARD

Did you know you have a personal dashboard — myMinerboard — connecting you to your alumni association account? It's a one-stop web page where you can update your profile information, register for events, review your giving history and learn more about the alumni association's engagement program. To access myMinerboard, you'll need to be a member of the online alumni community. Go to mineralumni.com and click on myMinerboard to activate your account.

DIGGING DEEPER TO MAKE A DIFFERENCE

Thank you to the OGS members who supported our students and their fundraising activities throughout Philanthropy Month in April. From a crowdfunding campaign for the Student Emergency Fund to Philanthropalooza showcasing more than 20 student organizations and their service missions, the campus community, local businesses, alumni and friends came together to make a difference.



TEDx MISSOURI S&T DELIVERS A "DARE TO CONSIDER"

This past March, 10 inspirational speakers from the campus community and beyond took the stage for TEDx Missouri S&T, a locally organized version of the world-renowned TED Talks sponsored by the TED Conference. Each speaker delivered a passionate, personal spin on the program theme, "Dare to Consider," from a teacher who transformed a small middle school choir into a 320-voice performing sensation to a researcher who is using virtual reality to teach tornado readiness to communities. Read more at tedxmst.com.



PUTTING TEAMWORK TO THE ULTIMATE TEST

Spring at S&T means student design — and late nights and long hours — as our teams enter the national and international competition season. This year a new design team, Underwater Robotics, will compete in the MATE (Marine Advanced Technology Education) International ROV Competition in Seattle June 21-23. Meanwhile, Formula SAE, Solar Car and other established teams are putting the rubber to the road. For information on S&T's 20 student design teams and competition dates, visit design.mst.edu.





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SAVE THE DATE FOR TWO SPECIAL EVENTS!

OGS HOMECOMING RECEPTION

SATURDAY, OCT. 13, 2018

HASSELMANN ALUMNI HOUSE

Join OGS for a cocktail reception on campus during Homecoming Weekend. Following the reception, you're invited to stay for the Miner Alumni Association Awards Dinner honoring the 2018 award winners. Take advantage of this great opportunity to connect with OGS members, participate in Homecoming festivities — and celebrate some of Missouri S&T's most accomplished alumni.

OGS WEEKEND

JUNE 6–8, 2019

CHICAGO

Mark your calendar and watch for details on this special weekend in the Windy City when we welcome new members, recognize members advancing into new claghsns and celebrate the Shillelagh spirit. Miner pride meets the Magnificent Mile.

For more information, contact **Sarah Jones** at jonesarah@mst.edu or 573-341-6359.