

THE HARDROCK™

SUMMER/FALL 2020



**Advancing
the frontier
of innovation**



**SOUTH
DAKOTA
MINES**



THE HARDROCK™

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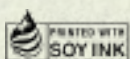
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About the Cover: Read more about the new university brand on page 10.

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THE HARDROCK™



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Dear Hardrockers,

It has been a pleasure to serve as co-presidents of the Alumni Association prior to the CARA merger and to get to know many of you as fellow alumni. We take away wonderful memories, though it's been quite a challenging year. First, South Dakota weather curtailed our ability to travel and meet more of you in person and then COVID-19 hit, which was all very disappointing. We did manage to attend a new alumni welcome reception, a couple of first Thursday lunches in the Black Hills and another great Pierre-area chapter celebration. What great traditions! We recognize and appreciate all who do what they can to gather, either in person or virtually. It's great to see the spirit of South Dakota Mines prevail in these difficult times. That reminds us to give a huge thank you to all who contributed to the Student Emergency Fund. Wow! Well done, fellow alumni! We hope you have seen the video where the students express their gratitude.

We are proud of the significant contributions South Dakota Mines alumni have made to the world and are pleased to honor them through various programs such as the March Medal, the 50-year graduate reunions, the Distinguished Alumni Awards, and the Outstanding Recent Grads. We still look forward to whenever these alumni will receive recognition in person. Congratulations, all!

The merger of the Alumni Association and Foundation into the Center for Alumni Relations & Advancement (CARA) is another significant event of the past year. An article on pages 20-21 covers this topic. It has been a great pleasure to work with the dedicated board members who give so willingly of their time and talents, including the Student Engagement Committee that provided support and leadership to student activities, the Alumni Engagement Committee that nurtured three new area chapters this year and virtual Lunch-and-Learn events, the Communications Committee that kept alumni informed on the merger and the pivot to *Reunion 2021*, and our Nominating (now Governance) Committee currently working hard on board selection criteria and training. We are very enthused about the future possibilities! If you'd like to know more about being on the Board of Directors, contact the CARA office.

Our alma mater needs support now more than ever. Alumni play a vital role in recruiting new students. There are many stories of how just a simple chat with a high school student (or parent of) led to a very successful South Dakota Mines experience. Please keep spreading the good word.

Don't forget to mark your calendar for Reunion 2021, July 7-11! Meanwhile, stay safe and Hardrock strong.

Lorin L. Brass *Mary H. Brass*

Lorin & Mary Brass

FLASHBACK



100 years ago

1920

The Mines beanie is given to the freshman class for the first time. "The greatest honor that the School of Mines can grant to its new citizens is the permission to wear the freshman cap." – *Pahasapa Quarterly* December 1920.

70 years ago

1950

The Permanent Reserve Officers Training Corps (ROTC) is established on campus.

50 years ago

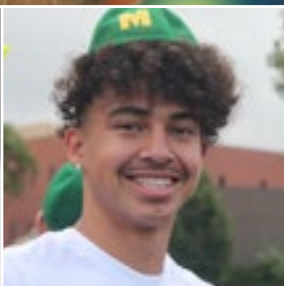
1970

The Devereaux Library is completed. Library materials moved from O'Harra to the new building in two days thanks to the assistance of students in Circle K, Drill and Crucible, and ROTC.

35 years ago

1985

South Dakota Mines celebrates its centennial with a range of activities.





CREDIT
Anne Susko (IE 14)



Dear Hardrockers,

It's safe to say that 2020 is among the most challenging periods in our 135-year history. Just as in past crises, like the 1918 flu epidemic and the accelerated engineering curriculum of World War II, our students, faculty, staff, and alumni met the challenges with creative problem solving and old-fashioned hard work that Hardrockers pride ourselves in.

Our alumni and campus community contributed more than \$240,000 to a student emergency fund that is ensuring the next generation of Hardrockers continues forward. This is on top of \$720,000 available in CARES Act funding for students in need.

Our faculty and students made an incredible 180-degree transition to all online classes in March. We went on to graduate 357 bachelor's, master's, and doctoral students in May.

We established the Rockers Return to Campus Task Force that is guiding our efforts to ensure the safety of our community while continuing our mission into the 2021 academic year.

While the university was sparsely occupied for three months, we were not stagnant. We continued work on our year-long effort to rebrand our alma mater. Many of you contributed your feedback and we've incorporated your input into our new logo. Read more on pages 10-11. The South Dakota Mines Foundation and Alumni Association concluded a multi-year effort to merge into one stronger entity, the Center for Alumni Relations & Advancement (CARA). You can read more about that effort on pages 20-21.

South Dakota Mines has a long history and rich tradition of fostering top-tier scientists and engineers who are leaders around the world. We're continuing this effort, and I think it's important to note that we have added the word "inclusion" to our values. We believe that science and engineering teams are strongest when they include a diverse range of perspectives and experiences. The global marketplace is increasingly diverse, and industry demands graduates that thrive in collaboration with individuals from all backgrounds and identities.

The first half of 2020 has been difficult for us all, and more hurdles undoubtedly remain. However, it's safe to say that anyone who calls South Dakota Mines their alma mater shares the grit and tenacity necessary to tackle current challenges and forge a bright future.

Warm Regards,

A handwritten signature in black ink that reads "James Rankin". The signature is written in a cursive, flowing style.

Jim Rankin, PhD PE (EE 78)
President
South Dakota Mines

Ask the Mines Expert

Dr. Elizabeth Racz, MPH

is an epidemiologist in the chemistry, biology, and health sciences department at South Dakota Mines.



Do masks really work? Why should I bother wearing a mask?

Very small particulates, including novel Coronavirus virions with diameters between 60 and 140 nm, are not filtered by ill-fitting masks or masks not designed to handle viruses carried on aerosolized droplets that are ≤ 5 microns.

So, why should you

bother? You are still having a positive impact and you are protecting yourself and others. How can this be? Masks act like a net, catching particulates that are drawn into the filter. The holes of the "net" are too big to stop all the viral particulates coming at you, but we know they stop some. Wearing masks lowers the viral load that will reach you during an exposure event, to what degree depends on the quality and fit of the mask. Imagine you are diligently studying and suddenly an infected person next to you coughs in your face. That short burst could be delivering a massive viral load right into your nasal passages, eyes, and your mouth (if you gaped at their rudeness for coughing directly in your face). A mask would protect you from inhaling a portion of the viral load coming at you (even an imperfect net will make a catch) thus, reducing your exposure over this very short period. Fewer viruses with spikes binding to your ACE-2 (angiotensin-converting enzyme 2) receptors and destroying alveolar type II cells in your respiratory tract is a good thing. These type II cells produce a surfactant that reduces the surface tension in your alveoli. Basically, they help keep the air sacs of your lungs open and exchanging gases (also a good thing). If self/lung preservation is not enough, know that masks also help others. They help you keep your microbes to yourself. Not only is this polite, it may protect your fellow Hardrockers and loved ones who are struggling to stay healthy.

Reunion 2021

COME HOME HARDROCKERS

Wednesday, July 7 to Sunday, July 11, 2021



The **A** in STE**A**M

Science, Technology Engineering, **ARTS**, and Math

At the edge of human knowledge, where the work of previous scholars offers little help, science and engineering pioneers must take a leap into the unknown.

Innovators are a wide range of individuals with diverse backgrounds: from the physicist who makes a discovery that expands our understanding of the universe to the everyday engineer who finds an elegant solution to an immensely difficult problem. One thing these forerunners have in common: almost all cite the critical importance of creativity in the discovery process.

project planned for installation on the ceiling near the front door of the university Music Center (Old Gym). The project includes aspects of mechanical and electrical engineering. It's designed to sense the location of an individual below it and play various notes based on the person's movement. Black Hills Energy saw promise in the team's design and offered a \$4,500 grant for its installation.

A team of South Dakota Mines students, including Alexandra Kliche (IE 20), Alex Kringen (IE 20), Kate Knott (IE 20), and Hans Leonhardt (IE 20), are exploring the boundaries of engineering, art, and music. Their senior design, called "Gateway," is an interactive engineered art

"I see engineering as part of art," says Kliche, who is the visionary for the collaborative project. "The same creative process is required in engineering, art, and music. All these pursuits are about bettering human life."

Like many South Dakota Mines students, Kliche says her study of engineering and math has improved her art and music.

COVID-19 brought an abrupt end to the plans for installation of Gateway, but a future team may be able to take up where this team left off.

Kliche is now pursuing her master's in engineering management at South Dakota Mines. Find more on this story at sdsmt.edu/research.

A degree in engineering does not exclude you from pursuing art and music.





HEAD ON

*Overcoming the
Obstacles of COVID-19*

Like the rest of the world, South Dakota Mines has faced countless challenges as it manages the COVID-19 pandemic. We are proud of how we've come together to find the best solutions during a difficult time, and we continue adjusting and innovating during the return to campus.

In mid-March, as news of the COVID-19 virus outbreak continued to spread around the world, President Jim Rankin sent his first Covid-19-related email to campus. It notified students that their spring break would be extended and asked the campus community to take care to prevent the spread of the virus.

Only one day later, the governor of South Dakota ordered state entities to begin remote operations, which meant all but essential employees of South Dakota Mines began working remotely. Just three days later, President Rankin announced the move to online classes

through April 3, and shortly thereafter the South Dakota Board of Regents called for online classes to continue through the end of the semester.

Before we knew it, we were a campus without students.

Faculty adapted classes to online formats from their home offices, and staff developed outreach and support services to be delivered virtually. Students faced a swift learning curve as they went from in-person instruction to Zoom classes.

Essential staff at South Dakota Mines continued to work on campus to clean, oversee emergency management, ensure housing to students without other options, and provide dining services to those students. Everyone worked long hours to provide the smoothest transition possible, including students who faced an adjustment to

the changed learning format. It wasn't easy for anyone, but South Dakota Mines not only finished its semester online, but held a virtual video-game themed commencement ceremony recognizing 357 graduates. It wasn't how we had intended to recognize the May 2020 graduates, but we made the best of it with more than 500 people viewing the video on the university's YouTube channel. We have invited these graduates the opportunity to participate in any future commencement ceremony they choose.

As we headed into summer, the decision was made by the Board of Regents to hold summer classes virtually as well. And so, we remained a campus largely without students. We did not, however, lose our innovative spirit.

During the COVID-19 pandemic, our students, staff, faculty, and researchers continue to be innovators, developing products, models, ideas, and more to help the community and the state manage this health crisis. Some of the ways Hardrockers have stepped up include:

- ***The Student Emergency Fund, created by the Center for Alumni Relations & Advancement (CARA) to help students affected by the pandemic. Early on, the Foundation recognized that many students were struggling with a loss of income from work study jobs and regular jobs that had ended due to the pandemic. The Foundation moved swiftly to set up the emergency fund, which fielded hundreds of requests for financial help. The South Dakota Mines Student***



Senate also joined in to help, donating \$50,000 to the fund. By early July, the fund had raised more than \$245,872.

- ***Research and development of personal protective equipment or PPE. In an effort to help local healthcare providers overcome***



a global shortage of PPE due to the COVID-19 pandemic, South Dakota Mines began working in March to design masks. The effort included faculty and students in the departments of industrial, mechanical, chemical, biological and biomedical engineering as well as chemistry, biology, and health sciences. The departments began by 3D printing prototypes, which led to new designs and collaboration. South Dakota Mines partners with Monument Health for any production and distribution of items.

- ***A real-time coronavirus tracking tool, developed by mechanical engineering***

professor Dr. Jason Ash (ME 99) and Dr. Elizabeth Racz, an epidemiologist and professor in the chemistry, biology and health sciences department at South Dakota Mines. Ash and Racz collaborated with Monument Health on the model, which has been consulted by the health system and the state when tracking the pandemic.

- ***Manufacturing hand sanitizer. Staff members Margaret Smallbrock (Ch 05), a chemist, and Aaron Grimm (ChE 18), a chemical engineer, concocted 230 gallons of hand sanitizer which was donated to Monument Health in April.***

These efforts are not over. Our staff, researchers and students will continue to step up when needed to help our community combat this virus. As we prepared to return students, staff and faculty to campus for fall semester, a campus task force laid out the Rockers Return Plan for doing so safely using guidelines from medical experts from such agencies as the Centers for Disease Control & Prevention. This includes introducing a hybrid model that combines in-person instruction with online teaching to keep classes small, which allows for social distancing. We are requiring students to wear masks in public indoor spaces and encouraging them to continue to social distance and practice proper hygiene.

We will continue to take it one day at a time as we try to safely educate the next generation of scientists and engineers at South Dakota Mines. We do so with optimism, an innovative spirit, and tenacity all Hardrockers pride themselves in. Stay safe, everyone!



Rebranding the University



In the past 135 years, South Dakota Mines has grown from a 19th century mining school to an engineering, science, and technology university.

Over the last year, we asked those with deep connections to Mines to reflect on where we have been and who we are today. We challenged our various audiences to share their thoughts. We are extremely excited with the results.

We worked with a marketing agency with years of higher education experience and with staff members that included a former vice president of enrollment and an industrial engineer. The process began with several face-to-face discovery sessions with students, faculty, staff, alumni, donors, and community members. Those who couldn't attend in-person sessions were given the opportunity to complete an online survey. All in all, we received input from over 1,200 people. This provided the agency with a strong foundation on which to build our brand message and visual brand identity.

What is a brand? A brand is the story of who we are, what makes us unique, and why we are a great university. The brand message means taking all of what we know we are and condensing it into selling points. It's a visual identity that will stand out from other universities. A brand is more than a logo. It is a story of who we are and what we represent. It encompasses our reputation, our history, and our future.

One of the challenges was how we referred to our university. The full university name is a mouthful, and

people have shortened it to various nicknames throughout the years – Tech, School of Mines, Mines, SMD, SDSM&T, and various other versions. It's critical that we establish a singular name that identifies us universally.

After much deliberation and discussion, the decision has been made to call our university South Dakota Mines. Mines is unusual word to encounter in the higher education space. It's memorable and unique, and pairing it with South Dakota makes it truly our own. Pairing it with the name lockup "An engineering, science, and technology university" paints a more complete picture of who we are.

Tagline

Advancing the frontier of innovation

"Frontier" is an emotionally charged word that parallels the university's experience – it can be a daunting, demanding place with lots of challenges. Students must be curious, ambitious, resourceful, determined, hardworking, and brave to succeed at South Dakota Mines. Pairing the word with "innovation" highlights the

important connection between past and present. "Advancing" not only positions us as academic leaders in STEM research, but also plays into the idea that this is a place that gives everyone the opportunity to succeed.

Logo

The old M logo failed to accurately convey the value of our alma mater to the world. It was often confused with logos belonging to other universities.

A prime example is when President Rankin traveled wearing the M logo lapel pin on his jacket, and people commented "Go Blue" referencing the University of Michigan.

Our new logo is a contemporary reimagining of our classic M and is inspired by the transformational story behind South Dakota Mines from a mining school to a top-tier engineering and science university. This mark has a sense of calculated movement that is at the core of what it means to be on the frontier of innovation. Borrowing the historic, yet timeless, black



lettering of the university's official seal, our new mark conveys a sense of calculated movement, with lines that transition from thick to thin, and precise notched corners that evoke a sense of progressive curiosity.

As one of the nation's leading engineering, science, and technology universities, South Dakota Mines is at the forefront of what's next. We're curious. We're tenacious. And we've got what it takes to change the world.

Brand Positioning

For prospective college students who are serious about their future, passionate about STEM, and eager to solve society's most pressing problems, South Dakota Mines delivers a best-in-class education at an affordable price, with a supportive and collaborative campus community that prepares graduates to become in-demand leaders in today's fastest growing industries.



Hardrockers of the Greatest Generation



It's worth all the suffering and studying you have to do.



In World War II, the United States had a desperate need for scientists and engineers. South Dakota Mines responded with an accelerated engineering program. This article includes the stories of two alumni who graduated during this period.

Curt Graversen (MetE 43) remembers finishing his junior year in May and starting his senior year about three days later in June. "This put our graduation in January," Graversen recalls.

While in school, Graversen worked a number of jobs from being a janitor, bartender, ground crew worker, and fossil preparator. He has fond memories of his 1942 summer job on a National Geographic-funded fossil hunting expedition to the Badlands.

"We slept in a tent and on the ground," he recalls. "It was hotter than the dickens with no place to get any shade." Some of the fossils Graversen discovered are now on display in the Museum of Geology. "We made \$75 per month. When I returned to school, I had three months' pay and I felt like I was living high on the hog," he says with a laugh.

After he finished Mines, Graversen went to work for General Motors making the machine guns used in Allied airplanes. As an engineer, his contributions were vital to the war effort. He later received a master's degree from the University of Utah and his career included a stint teaching engineering in Butte, Montana. He joined the company Precision Cast Parts when it was a startup. Today, it's a global firm with over \$10 billion in annual sales. He also worked for Omark Industries which made chain saw chain; this sent him all over the world, "wherever logs were being cut," he says.

His advice for the students of today: "It's worth all the suffering and studying you have to do. It was a hardship, but it was a lot of fun. I'd recommend that these freshmen students stay at Mines and get a degree. That degree will leave you pretty well equipped to do almost anything."

Harlan Meyer (CE 44) worked in a local hotel as a night clerk, which helped pay his room and board. He and a fellow student shared one room and worked the front desk in shifts between studying



and attending classes. "We slept in turns," Meyer recalls. "We would go to class until 2 or 3 p.m. then we could run the front desk in shifts between studies until the next morning at 7 a.m. when we went back to class."

In the summer of 1943, Meyer and fellow student Bill Coyle (CE 44) eagerly volunteered to search for bentonite in the North Dakota Badlands and surrounding areas. "It was a necessary occupation for the war effort," Meyer says. "We found it all over the place and enjoyed our time that summer," he says. "When you go to South Dakota Mines you have all kinds of different experiences."

Meyer served in the Pacific Theater with the Navy Seabees in WWII. "I made up my mind when I got back from the service I wanted to work in South Dakota," he says. Following his return to the state, his career included 16 years as the city engineer for Huron and 25 years as the executive director of the Associated General Contractors before retiring in 1987.

His advice for students of today: "Be sure and be serious about your studies. What you learn at Mines is really valuable to you after you get out."





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HIGH IMPACT HARDROCKERS

Dr. Valentine T. McGillicuddy

Valentine T. McGillicuddy was the first person to have the title of president, South Dakota Mines. Before that, he was a medical doctor, a topographical surveyor, a surgeon with General Crook's command in the 1876 wars, a friend of Crazy Horse, the first agent at Pine Ridge Reservation, president of an early bank in Rapid City, one of the founders of Black Hills Energy, a member of the committee that developed the constitution of South Dakota, a member of the state legislature, surgeon general of South Dakota, adjutant general of South Dakota, and the first person recorded as reaching the top of Black Elk Peak (formerly known as Harney Peak), all of this before he reached his 50th birthday.

But he didn't stop there. Later he served as mayor of Rapid City; then he returned to the practice of medicine in California, experiencing the great earthquake of 1906 and serving during the influenza pandemic of 1918-1920 as a public health doctor in the western U.S. and Alaska. He has been the subject of two biographies and sections of other books. He was sought out by many historians for information on the settling of the west in the last decades of the 19th century because he had participated in making parts of that history. For more detailed information on this remarkable person who helped create and guide South Dakota Mines, go to sdsmt.edu/research.

MAPPING THE MOON

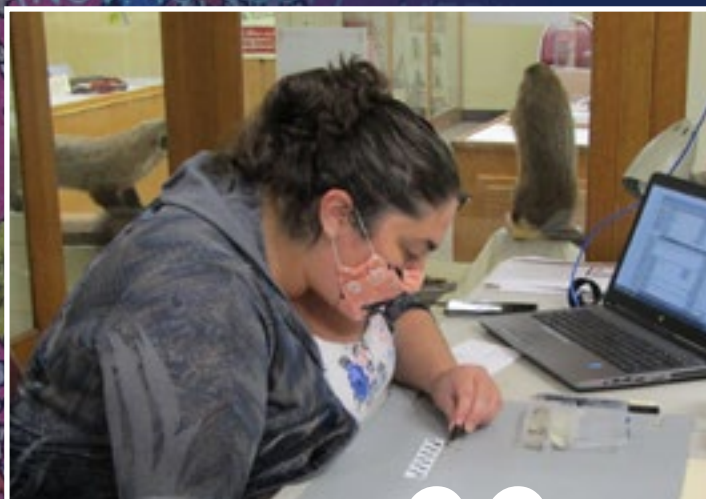
Mines Alumna sees work on lunar geologic map published by the USGS and NASA

It's not everyone who gets a chance to help map a celestial body.

Shannon Harrel (MS Paleo 19) was part of a United States Geological Survey team that completed the first ever unified geologic map of the moon. Her work on the project was completed thanks to a NASA space grant. Harrel used hard copies of the original six lunar maps published in the

1970s as a reference alongside current satellite images of the lunar surface to help map the moon at 1:1.25M scale.

She was also tasked with identifying and digitizing new or previously unidentified craters, mare ridges, rilles, graben, and basin rings using ArcGIS for the more comprehensive lunar map. In total, she was able to map an additional 3,000-4,000 features on the surface of the moon.



I didn't know I could follow my dreams because no one ever told me it was possible, but now I am telling you, **anything is possible.**

Harrel has advice for young people interested in STEM. "Don't give up on childhood dreams," she says. "I didn't know I could follow my dreams because no one ever told me it was possible, but now I am telling you, anything is possible."

STEM studies open the door to a world of possibilities for South Dakota Mines students, with one caveat: excelling in science and engineering fields requires effort and tenacity.

"The age-old adage still stands; anything worth having requires hard work," says Harrel. "But more importantly, have fun while you're doing it. Science should be exciting and if it starts to feel too much like work and no longer a passion, you're doing it wrong," she says.

Today, Harrel is working with the New London Public Museum in Wisconsin. She is providing expertise in paleontology to assist with identifying, cataloging, and rehousing fossil specimens at the museum.



From **RWANDA** to the **THE WHITE HOUSE**

South Dakota Mines Alumnus Makes His Mark

Thirteen years ago, Emmanuel Tuombe (MS CE 07) arrived at South Dakota Mines from Rwanda with little money in his pocket and no connections to the community. What he did have was optimism, hope, and a drive to succeed.

Fast forward to February 2020. The Mines civil engineering alumnus arrives in Washington, D.C. to accept an award as one of this country's Game Changers at the White House's Entrepreneurs and Innovators Summit. The event was held during Black History Month. "The

experience was so overwhelming," Tuombe says of walking into the West Wing to receive the honor. "I knew that it was something bigger ... that it was beyond myself. I was so excited because of all the people who I was representing."

Tuombe, who speaks six languages, grew up in Rwanda following the 1994 genocide when 800,000 people were killed over the course of 100 days. He witnessed firsthand his country's struggle to recover physically and emotionally from the destruction.

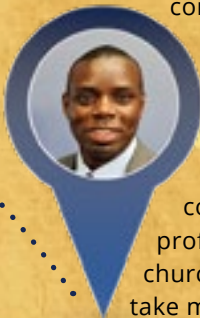
Tuombe decided early on that he would become an engineer. No matter where he was, he wanted to make a positive impact in his community.

Thanks to a scholarship, Tuombe attended National University of Rwanda for engineering. It was there, while volunteering as a student on a water project, that he met South Dakota Mines civil and environmental engineering professor Dr. James Stone. Stone recalls Tuombe as a highly curious and intelligent student who asked, "a million questions." He

impressed the professor so much that by the end of the project, Stone offered Tuombe a research assistantship position as a graduate student in the civil and environmental engineering department at Mines.

Tuombe arrived at Mines in 2006, borrowing money to make the trip possible. At Mines, he skipped meals and pinched pennies to make his dream of earning a master's degree come true. "I had a teaching assistant position, but I had to manage every single penny I had. You are in survival mode. I told myself I am going to last at this school," he says. "I was focused on the moment."

He dove into the international student community at the International Student, Inc. house and the Ivanhoe Center on campus. He connected with professors and local churches. "It didn't take me long before I could



adjust," he says. "I was a little prepared with my background living in a country where the genocide had happened. I had some resiliency in me."

Stone recalls Tuombe working on project in remote Harding County, South Dakota, as part of his graduate thesis. "I remember the first time Emmanuel traveled to the field sites in the Cave Hills

region," Stone says. "He was amazed by the open space and the lack of people. In his home country, there were similar open lands; however, the population density was dramatically higher than he observed there in Harding County.

He kept saying, 'Where are all the people?'"

Tuombe graduated with a master's degree in civil engineering in 2007 and accepted a position as a project engineer for a company in Colorado. From there, he moved to a job in Memphis, Tennessee, and then Virginia. In 2015, he returned to Memphis where he decided to launch his own business, ABES Engineering, Inc. "I knew it was not going to be easy," he says. "But I had seen the worst in life ... and I had faith that everything was going to work out."

And it did. Since its inception, ABES has grown and thrived, working for the city of Memphis on multiple projects. "I know my business needs to keep growing," Tuombe says. "I'm looking forward to partnering with large companies so we can make a big difference in people's lives."

To this day, Tuombe isn't sure who nominated him as a Game Changer. When he first received the invitation to the White House to receive the



award, he wondered if it was real, even hesitating to tell many people. "I started realizing it was real when I got there, when I met a person from the Department of Energy," he says. "Another person was an inventor. The

president came and spoke about how entrepreneurs are the backbone of this country. The experience was so overwhelming."

Tuombe says he quickly realized he was representing much more than himself. He represents people like him, immigrants and international students who come to the United States to improve themselves and the world around them.

Tuombe, who served as the director of the Rwandan chapter of Engineers without Borders and recently started another chapter in Gabon, wants students and immigrant businessmen and women to understand that anything is possible. At the Game Changer reception, Tuombe met "high-level people that I never imagined I would meet." He sat at the table with billionaires, met innovators, and made connections with business leaders from around the country. One meeting has led to discussions about a future partnership.

He's not stopping there. Tuombe hopes to one day meet innovators like Bill Gates and Warren Buffett. "I would like to sit in the room with the big guys, so we can share ideas and make an impact. It's not far-fetched," he says with the same optimism he arrived at South Dakota Mines with 13 years ago. "It might take another 13 years ... but it's what I'm shooting for. I dream big."

He wants others like him to dream big as well. He invites them to recognize their story in his. Whether they start at South Dakota Mines as he did, or at other universities, Tuombe hopes his story can be a catalyst for their hopes and dreams. "Stand tall, be proud, and dream big," he says.

Legacy

Dr. Scott Kenner

The greatest educators have an impact far outside of their own lives—their work is amplified, many times over, in the success of the students they inspire.

The career of Scott Kenner (CE 77, MS 79), PhD, PE, exemplifies the positive impact a dedicated college professor can have on the world. His work at South Dakota Mines, spanning more than three decades, includes a Fulbright scholarship to Mongolia, the Benard A. Ennenga Award for excellence in teaching, Presidential Award for Outstanding Professor, and the Guy March Medal, among other honors.

Perhaps his success is best measured by the achievements of his past students. Today they are leaders around the globe. John Henderson, (CE 94) PE, Assistant Secretary of the Air Force, is one example of many.

“Dr. Scott Kenner is an amazing leader and brilliant professor,” says Henderson. “His enthusiasm for our profession inspired an entire generation of Hardrock engineer-

Scott was always there to consult, mentor, and share his depth of knowledge with a kind heart and a big smile. He was totally dedicated to the success of his students and the civil engineering program, and it has been an absolute honor to work with Scott and call him a friend.”

Kenner’s reputation as a passionate educator with a contagious excitement for the concepts he teaches, coupled with a kindness and sincere desire for his students to succeed, will be his lasting legacy.

As the head of the Department of Civil and Environmental Engineering (CEE), Kenner’s career stands out not only for his excellence in fostering student success, but also for his excellence in research, which is primarily centered around water quality and watershed management.

A new scholarship has been established for a junior or senior in CEE at South Dakota Mines in honor of both Kenner and Ellen Haffner, who is retiring after 18 years as department



program assistant. More information on the Kenner/Haffner Scholarship Fund is on the CARA website.

This scholarship ensures Kenner’s legacy of supporting students will continue for another generation of Hardrockers. For him, the students were the best part of the job. “Working with students, what a joy,” says Kenner. “It’s just tremendously rewarding. It’s hard to let go,” he says with a little crack in his voice.

Leaders

Two Retiring Department Heads Have Scholarships Established in Their Names.

Lori Coble

Shaping the future through education is an art form that requires dedication, drive and the will to succeed. As Lori Coble reflects on her career and recent retirement, we can argue that she exceeded this definition.

Coble came from humble beginnings as a small-town teacher and moved to Rapid City to pursue a love for fast-pitch softball. With a full and dynamic career as a coach, educator and leader at South Dakota Mines, Coble exemplifies the type of person that leaves a legacy through her selfless actions.

Coble served as the women's basketball assistant coach for 28 seasons before stepping down in May of 2011 to take on a full-time biology instructor position in the Department of Chemical and Biological Engineering.

She was instrumental in the development of Mines' biology major and very involved in student retention, advising, and recruitment through the years. "I was passionate about the success of my students, many of which went on to become doctors,

dentists, physical therapists, and other medical providers," she says. "Student success was my main motivation at Mines for 37 years. I may have contributed a lot but I've received so much more back," she says. "My life has been so blessed and there have been so many great people that I have met. I have had so many great experiences and so many laughs—it kind of keeps you young I guess."

In 2016, she received the Benard A. Ennenga Faculty Award—a highlight of her career. Coble said "I never thought of myself as being on the same level as some of the seasoned professors who had been at the university for a long time. I still thought of myself as still filling in, so it was an incredible honor."

Coble still helps with recruiting, reference letters and advising. She plans to spend more time with family in the coming months, but she will not be a stranger. She hopes to support all the athletic events and continue to offer her expertise on campus.



The Lori Coble Family Athletic Scholarship has been established at South Dakota Mines. This scholarship is to be awarded to a member of the women's varsity basketball team.

SOUTH DAKOTA MINES

Center for Alumni Relations & Advancement

A New Chapter in a Long History

By

Shane Lee (MinE 10)
Alumni Director
South Dakota Mines
&
Sharon Chontos (ChE 87)
Interim CARA President
South Dakota Mines

On July 1, 2020, the South Dakota Mines Alumni Association (AA) and Foundation were merged from two separate non-profit corporations into a single 501(c)(3) non-profit corporation, the Center for Alumni Relations & Advancement (CARA). The action that both boards have taken was done with much thought, debate, and consideration. In fact, discussions between the AA and Foundation had been ongoing for many years on topics such as collaboration, sharing resources, development strategies, funding agreements, and responsibilities of how we each support the university. The boards of both organizations believe this is the right path forward to reduce the duplication of efforts and to expand on the capabilities of the staff involved in supporting the university. While the AA and Foundation have different missions, we share a common purpose: to support South Dakota Mines and all its stakeholders, especially its alumni, students, faculty, and staff. As alumni of this great institution, we want to see it grow and flourish; we support the university in a variety of ways

through time, talent, and treasure. Some alumni and friends give back to the university through their time and experience by volunteering, while others will donate financially, and some do both. Working together under the shared mission of supporting the university makes it easier to identify where we have overlaps and gaps, as well as opportunities to adapt new methods for engagement, services to students, faculty, and alumni, or even fundraising for scholarships and facilities.

Many past presidents of the AA were directly involved in the merger discussions that took place over the years. This merger would not have happened if it meant that alumni relations would be second priority to scholarships and fundraising. On the contrary, both boards acknowledged that the AA carried a great deal of history and tradition that is important to our alumni and community. Just as the AA has its roots, beginning in 1934 with a small group of alumni that wanted to support the university and each other, then registering with the State of South Dakota in 1960 as a non-profit organization, the Foundation also has its roots. It began in 1956 with members of the AA and the university who wanted to start a scholarship program for students who could not afford tuition; it was called the

Endowment Association. Years later, the AA worked with the university to turn that endowment into the South Dakota Mines Foundation. Today, we have come full circle

by bringing these two important organizations back together again, so that we can support the university better than ever before. Within CARA, the alumni office will continue to focus on engagement and recognition and the development staff will continue to focus on fundraising. The merged organization provides more resources for communications and event planning, and time to focus on fostering that feeling of community among our students, faculty, and alumni. There are many programs that have deep and meaningful roots in the AA, such as:

- March Medal
- 50-year Graduate Reunions
- Distinguished Alumni Awards





- Outstanding Recent Graduates
- 5-year Reunions
- Alumni Weekends
- Homecoming
- Area Chapter Gatherings

These--and the numerous other alumni events--will continue to be a priority.

Students, faculty, staff, alumni, and community members have been enriched by many people who have worked for the South Dakota School of Mines & Technology and supported its advancement. Throughout our rich history, there are a few people that truly dedicated their lives to the university and its students over the years. One was Guy "Pop" March (EE 22) (1895-1981), who embodied the Hardrocker spirit and dedicated

his whole life to this university and in many ways made Mines what it is today. In fact, not only was Pop March an alumnus (EE 22), but his wife, Gail (1893-1993), was also given an honorary degree in 1988 for her contributions to the campus and students. We remember Pop March every year at spring graduation when we recognize alumni with the March Medal which embodies that spirit of service to our great institution. This award is earned through years of giving back to the place that helped them become the engineer, the scientist, or the professional that they have become. The tradition continues.

When a student arrives at South Dakota Mines, they become part of the Hardrocker family. Through the work of CARA, scholarships and facilities enable each student to maximize their time on

campus. Once they leave campus, the organization will continue to nurture the relationships that started here. As each Hardrocker's career matures, so do those relationships. When a Hardrocker is ready to offer support back to the university, the CARA organization will facilitate that too. When you reflect on your time at South Dakota Mines, was there an alumnus who made an impact on your life? Recognizing the impact of previous generations on yourself is incentive to maintaining connections with other Hardrockers and offer support to the university. By giving back through your time and experience, you may be that person who helps change the course of a student's life. That is why CARA strives to help connect alumni to campus. ***That is Hardrocker spirit!***

Distinguished ALUMNI



Tom Corcoran (CE 83)

Tom Corcoran began his professional career as a structural design engineer in Omaha. He has 36 years of structural engineering experience. He has served as principal/partner at Integrus Architecture since 2006. Corcoran's professional projects span from the structural design of educational facilities, community libraries and commercial buildings, to correctional/detention facilities and police stations.



Connie Determan (CE 84)

Connie Determan has more than 30 years of experience in environmental engineering and management. Her career started with Woodward-Clyde Consultants in Colorado. She is currently vice president and environmental compliance officer at Kiewit Corporation in Omaha. She has been involved in a variety of environmental projects that include establishing new approaches for evaluating lead-contaminated soils at a national level.



Jackie Flowers (CE 92)

Jackie Flowers began her career as an engineer with the SD Department of Environment and Natural Resources in Pierre. In 2000, she became the public works director for Sheridan, WY. In 2006, she became the first female general manager of Idaho Falls Power. She is currently the director/CEO of Tacoma Public Utilities in the state of Washington.



Roger Musick (EE 71)

Following graduation from South Dakota Mines, Roger Musick joined Martin and Associates in Mitchell and became an equal partner in 1974. He started Innovative Systems in 1998 as a family partnership. One of his goals has been to create good jobs for Mines graduates. Today, Innovative Systems employs 47 alumni and interns from Mines.



Dr. Larry Schumaker (Math 61)

After graduating from Mines, Larry Schumaker finished his masters and PhD in mathematics at Stanford University. He spent 22 years at University of Wisconsin, the University of Texas, and Texas A&M University as a professor and a researcher. Since 1988, he has been the Stevenson Professor of Mathematics at Vanderbilt University in Nashville.

In Memoriam

*The names below include those who have passed (based on our database records) in the last 10 years, but whose names have not appeared in a previous **Hardrock** magazine. Please contact us if you know of any errors in this list. Going forward, it will be helpful if you share information about the passing of alumni you may know. The names below were received by October 5, 2020, and are listed alphabetically by year of graduation.*

Don Mansfield (GenE 48) 11/22/19	Joseph Pletka (ME 59) 1/3/20	Lynn Vanbockel (MetE 75) 6/14/17
Glen Madsen (ChE 50) 4/20/20	John Shuler (ChE 59) 2/17/20	Steve Warren (ME 75) 5/2/20
Robert May (GenE 52) 8/19/19	Larry Allaman (MS Chem 60) 4/28/20	Ron Powell (MinE 76) 5/23/20
James Smith (Chem 52) 9/23/20	Warren Barnum (CE 61) 4/5/20	Tom Ochsner (MinE 78) 10/2/20
Raymond Clancy (EE 53) 2/21/20	John Evans (GeolE 61) 1/20	Ron Bowar (CE 79) 7/6/20
Paul Jones (MinE 53) 2/15/20	Richard Moen (MetE 62) 3/12/20	Max Sachau (EE 79) 3/25/20
Leland Grebe (EE 54) 1/22/20	Roger Opp (MS Math 65) 4/14/20	James Hammerquist (CSc 80) 3/3/19
Francis Smit (MetE 54) 3/22/20	David Suliin (MS MetE 65) 2/17/14	Paul Rafter (EE 80) 6/29/20
Howard Haberman (ME 55) 4/6/20	Gary Young (CE 66) 3/28/20	Karl Lalonde (Geol 82) 5/16/20
Richard Patch (EE 55) 3/18/20	Roger Eatherton (ME 69) 3/23/20	Virginia Massie (MS CE 83) 11/20/19
John Linn (ME 56) 6/17/20	Ron Perrone (CE 70) 6/12/20	Cheryl Strachan (Phys 89) 9/13/20
James Bump (CE 57) 8/18/20	Larry Hoogshagen (ME 71) 11/3/18	Rod Bach (EE 95) 6/16/20
Ching-Shi Liu (ME 57) 1/12/19	Dave Zwetzig (ME 71) 8/5/20	Jody Skyberg (EE 95) 8/22/17
Norm Shyne (EE 57) 5/6/20	Gordon Henderson (Math 73) 4/21/17	Zachary Zelecki (MinE 16) 5/17/19
Peter Koskinen (MetE 58) 5/1/20	Lynn Crane (EE 74) 2/28/20	Former Faculty/Staff:
Dave Seefeldt (GeolE 58) 8/5/20	Lee Neal (MS EE 74) 5/13/20	Dave Grow (EE professor) 8/23/20
Dave Grow (EE 59) 8/23/20	Ron Tholen (Math 75) 12/3/19	Roger Opp (Math professor) 4/14/20



THE HARDROCK IS GOING DIGITAL

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CLASS notes

1950s



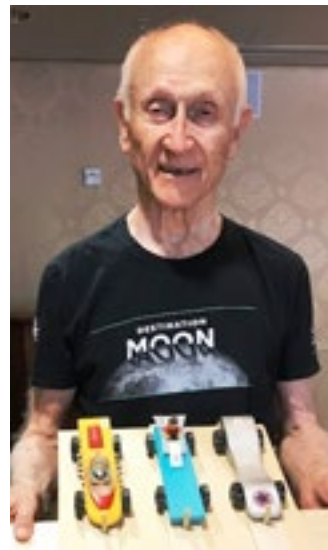
Al Dougal (CE 50) "My career consisted of one year at Convair in Fort Worth, 11 years at Forrest and Cotton in Dallas, three years with HDR in Dallas, and 18 years with the County of Plano as Director of the Planning and Engineering Department. I now live at a retirement community in Plano."

Victor Dosch (EE 51) has had a rough year. "I lost my wife on October 18 after 66 years of marriage. I also lost a good friend, classmate, and roommate at 815 West Blvd during our years at Mines, Arthur Childers (CE 51). I was hoping to do some

traveling this coming year and visit Mines, but the virus pandemic messed up my plans. Maybe next year for the 5-year reunion."

Roger Baird (EE 53) "Donna and I live in the Acacia Creek Retirement Community and pretty much stay in our rooms because all group activities have been cancelled. We get our meals delivered and are encouraged to keep our exercise activities going individually. Life is tolerable and we can gather in small groups with proper spacing. But the Turkey Roost, our bar which normally serves draft and bottled beer as well as premium wines on tap and in bottles, has been closed. Since I am the volunteer managing director, known as the Bar Czar, I am out of a job and I don't qualify for unemployment compensation. We have about 200 residents and the Masonic Home has about 300 residents which includes skilled nursing and memory

care facilities. There are about 300 staff to manage and care for all of us. So far, all is good."



John (EE 56) and Alice Mohr along with others built a Pinewood Derby style racetrack. "Numerous fellow residents at the Aberdeen Heights Retirement Community in Kirkwood, MO, built cars using a Boy Scout car kit. The track is 32 feet long and the cars speed at about 20 mph. **Bill Hoskins (ME 51)** also lives at the same retirement community."

Max Gassman (ME 56) "After graduation, the John Deere Product Engineering Center gave me 30 years of very interesting employment. I then worked for 25 years as an ME professor at Iowa State University (ISU). I have received eight US Patents and published the Engineering textbook Hydraulic Power System Analysis, Taylor & Francis, 2006. I married Elizabeth Evans from Belle Fourche in 1955. We have two sons, seven grandchildren, and four great grandchildren. We are retired in Ames, IA. Our youngest grandson received his BS degree in supply side management from ISU."



Harlan Hartman (ChE 56) "On a delightful cruise to Alaska with family for my required crab dinner."

Bob Annett (ME 56) "I was so disappointed when I learned that Reunion 2020 was postponed until next year. It came as no surprise since most everything in CA has come to a screeching halt. There are some signs that a few businesses are beginning to open with lots of restrictions. I'm concerned about the consequences of all this. I guess I feel blessed that I don't have to leave home. My daughter lives with me and that's a good thing. Let's pray that the pandemic will be over soon, and America will bounce back."

Warren Ruhnow (Math 79) spends time playing pool, line dancing, and working out at the Canyon Lake Senior Center in Rapid City. "I came to Mines on the GI Bill, worked for Rockwell Collins and other companies while completing MS and PhD degrees, and now love living in the Black Hills."

Bill Nissen (MetE 57) "After 52 years at our Salt Lake City home, Sue and I will be moving to the active senior apartments in Taylorsville, UT. I'm sad to say that my buddies Bill May (EE 57), Clyde Jundt (CE 57), and Floyd Brown (EE 57) have died. This year I've missed the Salt Lake alumni meetings and skiing with **Bud Petik (EE 64).**"



Burt Bomhoff (CE 58) has lived in Chugiak, AK, since 1960. "I rode through Rapid City and Mines last summer on my motorcycle then all through the Black Hills. I turned 85 in April and hope to again ride my bike across South Dakota and those beloved hills and the Mines campus." (Note: Burt worked on Iditarod race organizational matters for many years and finished seven Iditarod dogsled races between 1981 and 1992.)

Richard "Dick" Berg (CE 58) "I'm disappointed

that Reunion 2020 had to be postponed. The \$25 registration fee reminded me of the 1960 reunion when the fee was \$25, which at the time was about 5% of a month's salary as opposed to a little less than an hour's salary now. I was working for the SD Department of Highways and living in Rapid City. Because of a problem with closing the end of the fiscal year, we were not paid until the 6th or 7th of July. On the day of the registration for the reunion, we had only \$20. Needless to say we did not register. This led Carolyn and me to do like the money managers say, 'pay yourself first.' For the balance of our 57 1/2 years of marriage, we never had a cash problem and never missed another reunion. The Lord took Carolyn home on May 19, 2015. The Lord willing, I plan to attend the reunion in 2021."



Don Houck (ME 59) "Like everyone else, I am homebound. I had planned on a trip up the East Coast on my sailboat 'Dances on

Water' (Caliber 47 LRC) to seek cooler weather for the summer from what I will now experience on the west coast of Florida. I retired the first time in 1990 after 32 years working for the National Nuclear Safety Administration/Department of Energy at the Los Alamos National Laboratory, the Nuclear Test Site in Nevada and the Dow Chemical Nuclear Plant in Colorado. I retired again in 2009 after independent consulting and ten years as vice president of Sonalysts, Inc., a Connecticut engineering R&D firm. Mary, my fantastic wife of 53 wonderful years, died in 2010. I consulted again for two more years before I finally handed in my nuclear clearance. Now I can sail on my timetable. I fell in love with the ocean while in the Air Force stationed in the Caribbean and Texas in the 1950's and started sailing seriously 20 years ago. I fortunately have family here who also love to sail, as it now takes at least two to sail 'Dances on Water.'"

Paul Clare (GenE 59) "The friends I met and education I received at Mines were great and led to a fulfilling career. I met my wonderful wife Shirley from Tennessee while an officer in the US Army Corp of Engineers in Germany where she was

teaching in a US Army high school. We had our 57th anniversary this year. I spent 16 years as an engineering manager for Kaiser Aluminum in Washington, Kentucky, California, Australia, and New Jersey and 18 years as president of Hudson Technologies, a company of 250 located in Ormond Beach, FL. During our years of retirement Shirley and I have been able to travel back to where we previously lived. Many of the trips have included children and grandchildren."

Bruce Johnsen (CE 59)

"Shelter-in-place day #67 [May 24]. Zoom and FaceTime have become sturdy friends in my consulting business. A lot to be thankful for, along with the engineering education I got at Mines."

1960s



CJ DeLange (ME 60) "Shirley and I are both in good general

physical health; however, Shirley has significant mobility and now memory issues. This year we have outlived any apparent COVID issues with no impact even though 81+. Last year, Shirley had both hips replaced and survived rehab very well. She needs a knee replacement; however, we are concerned she cannot do the required rehab. We had hoped to attend the 2020 reunion. We miss our many past travels and hiking, but praise the Lord for our blessed experiences in all the prior years."



Tom Lutz (Math 60)

"It's been a long time and millions of miles traveled since Cheke and I were dorm parents at Connolly Hall and I was teaching math to Air Force aviators from Ellsworth and finishing my senior year. God has blessed us with two children who have given us 10 grandchildren (pictured at our 80th). Awarded an IBM Sabbatical appointment, I earned my master's in operations research at NYU in 1969. God opened doors to travel the world, live all over the country, and serve Him while working as an IBM applied scientist, business leader, CIO at the Mayo Clinic, and department

head at Baylor University. As a leader in the fields of Information management and change, I consulted, lectured, preached, and wrote. Navigating Your Change Mazes has been used in businesses, universities, and with church leaders. We now write kids' stories and minister to young families. Cheke continues to fill our home with music, Godly insights, and JOY."



Robert Nelson (CE 61)

"We are all preoccupied with COVID issues throughout California and here in Riverside. I even made my front yard bush comply."



John Morris (EE 61)

"Jan and I are doing fine. We summer in Wyoming and winter in California. Hope to see some of you next summer

in Rapid."

Jon Spargur (ME 61)

"Jeannie and I continue to enjoy life in and around our Carolina Arbors 55+ community. Not yet ready to move to the continuing care facility for which we have signed up. Plenty of space and trails here for walking since the fitness center is closed. I also have a small community garden plot to 'mine' some vegetables and flowers. Our trips for this year are canceled, but we may get one family trip to the beach later on. Continue to be amazed by all the great opportunities, projects, and research happening currently at Mines, and all the things in which the students are involved."

John Sibert (Chem 62)

"I have had an interesting career path since my chemistry days at Mines, none of which would have been possible without the School of Mines. That education experience gave me the confidence to take on a variety of challenges. I spent many years in academia as a professor and administrator at Yale, Caltech, and the Cal State system. I also spent part of my career as manager of corporate research for ARCO and founding director of the Alaska Science and Technology Foundation and even got into local politics as council member and

mayor of Malibu, CA. Now we are mostly retired and travelling, though I am still consulting about 4 weeks/year with NASA at JPL. We were looking forward to the reunion this year, COVID-19 changed those plans, but we may do a road trip to the Black Hills anyway."

Harlan Miller (Geole 62) "I lost my wife of 51 years from complications following surgery. It was NOT coronavirus. I'm planning on visiting the campus, but not until this pandemic is over – hopefully during the all-school reunion next summer."

Daniel Lee (CE 62) "After receiving an MS degree in structural engineering from Cal Berkeley, my aircraft structural analysis career included work on the F111, XC142, UH1N, F16, F15, F22, A12, 747, 707, and MiG21. The MiG was a reverse engineering effort on a plane flown to Israel by an Iraqi defector. I can hardly believe that I have been retired for 13 years. I enjoyed working and I enjoy retirement as well. My last big engineering job has been designing and building an elevator and its control system into a house addition that Mary Lou and I designed and that we continue to live in. Looking through the 1962 yearbook

I noticed that we must have been seated alphabetically since my closest friends had last names beginning with H to K and I am surprised to see that we had only one woman in our graduating class. I am glad that I got to be in class with the large group from Bergen, Norway, they were fun to be around."

Gary Velder (CE 62) serves on the Butte-Meade Sanitary Water Advisory Board of Directors and helps his son with the haying operation on the farm.



Sitting: **Lars Seeberg (EE 70)**, **Bjørn Ask (EE 70 EE)**, **Per Kragseth (CE 62)**, Egil Ertresvaag (professor at the University College of Bergen editor). Standing: Nils Mæhle (former director of the University College of Bergen), **Godtfred Nymark (EE 69)**, Jo Gjerstad (Bodoni editor), and **Hans Nilsen (EE 70)**. "From the start of the early fifties, about 800 Norwegian students have come to Mines. Most of these students came from Bergen Technical School (BTS) but some also came from other Norwegian schools. This is

such an important side of the higher Norwegian education system that some of us have written the book: *Drømmen om Rapid* (The Dream of Rapid)." The book can be ordered directly from the publisher: BODONI FORLAG AT www.bodoniforlag.no.

Lonnie Ludeman (EE 63), emeritus professor of electrical and computer engineering at New Mexico State University, was honored with one of two Alexander J. Lindsay, Jr. Unsung Heroes Awards for 2019 in recognition in his voluntary career in archaeology. The awards are presented annually at the Pecos Conference by the Arizona Archaeological and Historical Society (AAHS) to recognize the importance of individuals whose work has often gone unacknowledged, but that is critical to the success of others in archaeological, anthropological, or historical research. "Mines prepares us for everything."

Bill Kass (Chem 63) "I continue to serve on the Albuquerque Civilian Police Oversight Agency Board and was recently elected Chair. The board consists of nine members selected by the city council to represent the community. The agency has an executive director, four investigators, and a

\$1M budget to investigate citizen complaints, recommend police policy changes, and conduct community outreach. We have an influential position in the Albuquerque Police Department (APD) policy development process. These are the procedures that police follow in interacting with the public. APD has been under a consent decree with the Department of Justice for about five years as a result of a finding of a pattern of police violence and use of force. The oversight responsibilities of the agency were significantly increased in response to the DOJ findings. I spend a lot of time in what are currently virtual meetings with police and city officials dealing with use of force issues, citizen complaints, and policy development."

Richard Frank (ME 63) "2020 will be a transition year as I complete my responsibilities as executive chairman of Darby Equity/Franklin Templeton. Looking forward to spending more time on the Mines international programs launched by the Frank Family Foundation 12 years ago. We started funding opportunities for Mines students to live and work in developing countries, thanks to the inspiration of **Ron Jeitz (CE 69)**. Strong support has continued from Mines

Presidents - Heather Wilson and **Jim Rankin (EE 78)**. Among the areas of priorities is developing a technical and business model for Waste to Energy (WTE) operations in Latin America. The goal is to combine a unique form of renewable energy with attractive environmental benefits.

Oliver "Bud" Petik (EE 64) "Since my retirement 15 years ago, Mary and I have been very fortunate to enjoy traveling to visit our families, friends, and destinations. Last summer we toured Ireland for three terrific weeks, with fellow alumni **Ray (ME 64)** and Judy **Rossi**. We would highly recommend Ireland for its charming people and its beauty. In mid-March, we were scheduled to be in Spain. Like everyone else, we ended up house bound. To pass the time, I put on my Geppetto hat and turn pens and small bowls on my wood lathe. I have built Mary a cherry buffet and finished my 3rd grandfather's clock, out of black walnut. Three years ago, a few of us organized a Salt Lake Mines alumni group. We found there are approximately 150 alumni in the Salt Lake area and typically meet about four times a year for lunch. Now that our local shooting range is open, I am going to resume trap shooting."

Larry Ayres (CE 64) "Just been reflecting back on the 56 years, this month, since I graduated. It was the days of T-Squares and slide rules and manual calculations. These days I sometimes stop by construction projects to just watch how automation has increased productivity. We still reside in Sioux Falls where I started my post-college career building the interstate west across SD and retiring after doing consulting and design in manufacturing and fabrication. Now that I am a great grandfather, I look forward to sharing my life stories with a generation that will graduate high school in 2038. I can easily see how people of that generation will see us as truly ancient! But then I think back to those who graduated 60-70 years before me and recall how they were ancient to our times. My family still lives in Brookings and Minneapolis. We are thankful that COVID-19 has spared us any personal challenges (except staying at home) and look forward to the slightly 'delayed' Mines reunion next year. I have never missed one and so look forward seeing all the familiar and new faces."

Daryl Pratt (EE 65) returned to Sioux Falls last September for his 60-year reunion at Washington High School. "There were no fellow

Hardrockers, but several good old friends wished that they had gone to Mines!"

Dick Schlumpberger (CE 65) "Mary and I were planning to spend the summer in Rapid in our condo and enjoy the reunion. What a disappointment. We will probably get to Rapid sometime this summer when the COVID-19 lockdown is softened. We have become lovers of the Hills (again) since we bought the condo a couple of years ago. If any of my classmates visit Rapid, get in touch with the alumni group as they know where we are. I look forward to having a beer and/or conversation."



Gary Erickson (CE 66), Mike (ChE 65) and April **Gustafson**, and Donna Erickson met for lunch in Mesa, AZ, on May 28. From Gary: "All is well with my wife Donna and me in AZ where we have chosen to spend our years in retirement. We purchased our home in Casa Grande in 2010. I spend several days a week on the municipal golf course and am active in our church home and currently serve on the church council. We usually spend

a month or so during the summer back in the Midwest visiting relatives and friends. However, due to the COVID-19 pandemic this year, those plans might be scrapped. In March, **Jerry Brown (CE 65)**, who spends time during the winter months in AZ, and I played golf at Saddlebrook's Mountain View Golf Course with **Dan Hoshino (ME 65)**. This was the annual gathering of Triangle brothers for golf. Dan graciously hosted us at his home for the most important part of the day, socializing."

Frank Hahn (CE 66) "I am retiring from Hahn Surveying Group that I started in Indianapolis in 1976. During the initial ten years I used the profits to invest in real estate. At that time, I read an article about a man who moved to Aspen but still managed his East Coast business. That sounded like a plan to me, so I turned over the day to day management to 3 key employees. I moved to Prescott, AZ, to concentrate on real estate investing there as well as in Indiana. Over the next 34 years, I gifted 90% of the shares and profits to those employees. I continue to credit Mines with the discipline to start my own company and have funded the Engineers Make Great

Entrepreneurs program for three years. My wife is also retiring from her career as a teacher and theatrical director. Since she says she married me for better or worse, but not for lunch. We look forward to traveling more and visiting our scattered four children and three grandsons."

Dana Peterka (Chem 67) "Sally and I have enjoyed lakefront living since retiring to Rockwood, TN, in 1999. After living/working in 3 of the 4 largest US cities, it is nice to live in a rural area (especially with COVID-19 pandemic). I have been doing a lot of volunteer work focusing on business and education. I have been a SCORE volunteer for 15 years. I provide free and confidential counseling to local small businesses and conduct workshops in a dozen area counties. I am chair of the local Chamber of Commerce and immediate past chair of the Roane State Community College Foundation. I have been involved with the college for 18 years. We are looking forward to the 2021 reunion!"

Wayne Binfet (EE 68) "After living in the Sioux Falls area for almost 13 years, we decided to move back to Minnesota to be closer to family. That meant I had to leave all of the really good

volunteer organizations that I supported in South Dakota and will have to seek out new opportunities in Maple Grove, MN. I can also reconnect with other Twin Cities alumni that I knew before moving to South Dakota."

Harold (MetE68) and Marge **Bross** live in Destrehan, LA, a New Orleans suburb. "I retired in April 2006 after a career of 38 years with Shell. My last position was technology manager for development of equipment utilized in drilling and production of gas and oil wells and development of seismic technology for maximizing oil recovery. Marge retired in 1995 after 25 years as co-owner of a travel agency which handled groups and meetings/conventions throughout the US and Europe. We both love travel and have traveled extensively before and after retirement. Also, we spend about six weeks a year in our Destin, FL, condo. We plan to attend the Mines reunion now planned for July 2021."



Paul Axtell (ChE 68) "I am looking forward to South Dakota pheasant hunting in the fall. My new book is out. I am pleased to see the press about how a Mines education is a sound investment."



Allan Martens (MS Phys 68) "I retired from 3M in 1996, lived on a boat for five years before living in a motor home for a few years. We have lived in Tucson on and off for 10 years. My wife, Sue, is in a nursing home and I cannot see her, so for something to do I dug out my paints from 15 years ago and started painting again. Before all this mess I spent my time

in the silver shop. I used a Gorman tile as an original to relearn how to brush and mix paints again. After that I made a bracelet."

Gary Lower (ME 69) "I really enjoyed the 2019 50-year graduation reunion events. It was the first time I had been back on campus since the 1985 reunion. Much has changed in Rapid City, and on campus, since 1969. So great to see so many classmates (total of 28, I believe) from the graduating class. Had not seen many of them since graduation. I have been living in Houston since 2002. My daughter and her family (three grandsons) living nearby. I spent my entire career in the oil and gas business including the US and living in five other countries ranging from southeast Asia to Europe and Scandinavia. It was nice to get to see the world as part of my work life, and an incredible experience for my wife and daughter. I finally fully retired in 2014 following a consulting assignment here in Houston."

1970s



Barb (Math 70) and Lin (ChE 69) Seder "Our plans for 2020 started out well. We celebrated our 50th wedding anniversary on February 7. Our anniversary picture shows us as most people see us – walking hand in hand. Our wedding was in Rapid City. Thanks to a convenient Chinook it was 70 degrees that day. Our celebration plans are like our retirement plans. Rather than bring people to us, we'll go visit them. All went according to plan in February, we went to Houston visiting friends and catching up on old times. On the way home, we stopped in Big Springs to visit with **Doug Lykken (ChE 71)** and his wife Jana. Then our plans were disrupted. Stay at home! Stay at home! We'll just continue our celebration later. And all the 'elderly,' please remember it isn't how you avoid dying, it is about how you live."

Milton Schleve (Math 69) "My brother and sisters are still in Rapid and I'm in Denver working 3 days a week. I keep in touch with **Dave Ohlen (MetE 69), Rod Michael (ChE 69), and Mike Hobler (Math 68).**"

Jim Russell (EE 69) "We have been blessed with good health and are still active enjoying kids/grandkids and some traveling. Kids and grandkids are living in Minnesota, New Jersey, and Colorado. I still work part time for FEMA which has taken me all over this great country the last 14 years and I have helped its citizens recover from disasters of all types. I have seen a lot of things that I hope I never see again!"

Dianne Hinsch (Chem 70) "My husband **Milt Hinsch (MS Chem 71)** passed away on November 8, 2017 after a valiant 9-year battle with cancer. He is survived by me, three sons, four grandchildren, two sisters, and 1 brother."

Steve Steele (ME 70) "I retired in 2004 after 35 years with the Shell Oil & Shell Chemical Companies and have remained active in sports as much as the body allows! It is pretty much golf now. Mary and I moved from Houston in 2006 and built a house at the Cliffs at Lake

Keowee in the northwest corner of South Carolina.

Our oldest daughter, Jennifer, lives in San Antonio where she is the head of the physics and astronomy department at Trinity University. She graduated from Rice University with a PhD in physics. Stephen Jr. is married and works for Pandora in Oakland. He too graduated from Rice with a dual degree in economics and music. Our youngest daughter graduated from TCU in communications and is also married living in Southlake, TX. They have a 2-year old son and a daughter on the way due in October. Mary is VERY excited about this and looking forward to spending even more time in Texas.

Mary helped organize and spends a lot of time at the organic garden we built in the community. I get a little tired of eating all of the green stuff all summer! She plays limited golf, is starting to play pickle ball, and enjoys all of the women's social activities in the community. She is in charge of the "Tie-One-On" group that get together each month to cut & tie together 2-layer felt blankets for the senior citizens and the needy in Pickens County. They surpassed 1,000 blankets last year. I get to clean up

the mess.

We are blessed to be here and enjoy cruises (especially river cruises), visiting friends & families at reunions and in Florida each winter, and the many things you can do in the mountains and lakes. We are both in good health and as with everyone else, are getting a bit tired of the restrictions required for COVID-19. Hopefully things will get back to some normalcy soon."



Bill Bundschuh (EE 71) retired from Silver Bay Power Company (Minnesota) in December after working for 48 years. "So far retirement feels good, despite the isolation caused by the virus. I spend my time in my wood shop building reproductions of 18th century furniture from the Queen Anne and Chippendale periods of furniture making. I am a member of the Society of American Period Furniture Makers and am just completing a Chippendale chair that I have worked on and off for three years."

Frances (Math 71) and **Jim (MinE 73) Krupka** are completing construction of a home on six acres of ranchland on the small Hawaiian island of Molokai. "It is like South Dakota but with an ocean! We plan to divide our time between Molokai and our northern Michigan vineyard. Jim published his second book, *Make Your Marriage Unbreakable*, based on his work helping couples prepare for and enrich marriage. This book follows an earlier release, *The Benevolent Edge*, offering charities and small businesses leading edge strategic planning and management skills."



Mark Fischbach (ME 73), Bill Keller (ME 71), Larry Stember (ME 72) and **Steve Wider (GeolE 71)** skied together at Terry Peak for their 50th 'ski patrol' reunion in February. It coincided with

the annual Senior Ski Day sponsored by Terry Peak. Dr. Larry Stember recently announced his retirement after 36 years working as a chiropractor and acupuncturist. He continues to live in Bemidji, MN, and St. Paul. Plans are to do a lot of skiing, golfing, and restoring old Chevys.



Rob Howe (EE 72) "There has been a lot of growth in my family since graduation. We get together annually, last year at Lewis & Clark Resort in Yankton, SD. 33 out of 38 made it. Evie and I have six kids and 24 grandchildren. I am now retired from the US Navy, John Deere, Howe Consulting, LLC, and adjunct professor in the University of Sioux Falls MBA program. We all are doing well and no COVID-19 in the tribe. Evie and I live in Sioux Falls, SD. Feel free to stop in and visit when in the area. We hope everyone is well."

Clair Menning (CE 73) "I have been retired for six years, and just finishing the 5th year of completing humanitarian projects in the eastern Caribbean islands. My wife, Magoe, and I co-founded the Macario

Advantage Foundation (www.macarioadvantage.org), and have devoted much of our time since 2015 to fundraising, project planning, project completion, and follow-up support to benefit local humanitarian organizations that serve young children, homeless and abused youth shelters, and elderly care homes. When not engaged in projects in the islands from November through April of each year, we live on 30 acres of grazing and gardening property west of Houston, TX."



Frank Hansen (CE 73) "Having graduated from Philip High School, Professor Coyle kept a close watch on me while at Mines-he always favored M.R. and was a little suspect of me. In 1974, **Dr. Paul Gnirk (MinE 59)** approached me about joining **Gary Callahan (ME 70)** and **Leo Van Sambeek (MinE 72)** at RESPEC, a young company investigating an emerging research field of geologic disposal of nuclear waste. Including the next employee, **Joe Ratigan**

(ME 71), all four of us went on to earn PhDs thanks to visionary investment in academics engendered by Paul Gnirk. I joined Sandia National Labs in 1988 and continued engineering and scientific research until retiring as senior scientist in 2017. In March of 2020, I was honored with the Waste Management Symposium Wendell D. Weart Lifetime Achievement Award."



Alan (EE 74) and **Liz Bergeron** had an exceptional trip to Patagonia and Easter Island January/February 2020. They learned a great deal about the regions, marveled at the beauty, and appreciated the opportunities to interact with residents. The history of Easter Island, home to over 900 moai statues, is rich and controversial and its inhabitants have seen destruction of the ecosystem over the years. The trip included visits to several glaciers in Patagonia, and a stop at Cape Horn, the southernmost point of the Tierra Del Fuego archipelago. Something they will always

remember is the wind. Lots of wind, even more than South Dakota! During this trip, they ate extremely well and had some amazing red wines (mostly Malbec)! They hope to return to Patagonia someday as it was a spectacular adventure.

Richard Buchheim (ME 75) “This is my first time answering the call. I retired from a successful career with the Bureau of Reclamation and Corps of Engineers in 1997 at the age of 50 and moved to Traverse City, MI, in 1999. I enjoyed retirement until December 2019 when I had 4 bi-passes and a new aortic valve. I have two brothers-in-law who graduated from Mines, **Kelly Kober (ChE 80)** and **Rodney Christopherson (CE 82).**”



John Alley (ChE 76) “I worked for Archer Daniels Midland, an agricultural processing company, for 36 years in 16 different states and three Canadian provinces in a variety of positions from plant manager to general manager before retiring in

2012. One interesting place I worked for three weeks was Port Colborne, Ontario. The plant was on the waterfront right next to the head locks that bypass Niagara Falls. You could reach out and almost touch ocean going vessels as they passed. I have been married for 42 years to my beautiful wife Niki, have four children, 11 grandchildren, and four great grandchildren. I am really enjoying retirement because of not working long hours and being away from home and family for weeks or months at a time.”

Darles Scheibe (CE 76) “I retired on April 2 after 43 years with Chicago Bridge & Iron (CB&I). Doesn't seem like that long working for CB&I as I enjoyed what I was doing as a project manager for most of those years. Each project had its own unique challenges and enjoyment, as I love seeing structures being built. I have traveled the world with CB&I from Saudi Arabia to Australia and New Zealand. My wife Vivian and I enjoy the outside working in the gardens and doing some traveling which unfortunately has been restricted somewhat right now with the COVID-19. We do have a trip booked to Ireland this fall, so hopefully things will straighten out soon. We have three fine

sons, two of whom live in Chicago and one in Knoxville, TN. Our oldest, Nathan, who lives in Knoxville, is married and has three children. Needless to say, we have traveled there quite frequently to keep up with the grandkids. Other CB&I Mines graduates have also retired over the last couple of years. Those folks were **Jeff Walker (CE 74)**, **Steve Danekas (ME 71)**, **Jeff Dietz (CE 72)**, and **Gary Bertelson (CE 77).**”

John Zoss (CE 76) “I retired last December after 43 years with Cargill. We are still living in Lafayette, IN. I spend a lot more time playing golf and my wife, Donna, is still a full-time instructor at Purdue University. We now have three grandchildren and try to get away as much as possible to see them. Looking forward to the reunion in 2021!”

Julie Dahl (Math 76) “I've just retired after teaching math for almost 40 years at Mines. This last spring turned out to be the most challenging semester ever. I'm very proud of the students—our future alumni—who rose to the challenge and adapted to the changes. And thanks to all alumni who contributed to the Student Emergency Fund. It made a big difference to some of our students who

suffered financially due to COVID-19.”

Scott Kenner (CE 77) has retired from his position as professor and head of civil and environmental engineering at Mines. His career included 12 years in private practice, five years at the University of Florida, and 28 years at SD Mines. “I look forward to taking my grandchildren fishing, spending a little time on the golf course, and traveling with my wife **Mary (IS 99).**”

Kathy Hanley (CE 77) retired at the end of the spring semester after 13 years as a part-time CE instructor just in time to welcome her sixth grandson, Connor James, born on Mother's Day, seven weeks early, weighing in at 4 pounds 14 ounces. “Connor will not take after his grandma in pushing the deadline to the last second! I will miss working with the high caliber students and excellent faculty, administration, and staff at Mines.”



Jerry Tystad (MinE 77) spent some time at O’Harra Stadium and concluded, “my arm strength isn’t quite what it used to be when I was in college.”

Bill Betten (Phys/EE 77) “I enjoyed being back on campus last fall for the University Advisory Board meeting and the President’s Dinner. I had a chance to catch up with college classmate **Jeff Allen (ChE 77)**, who has retired back to the Black Hills after a long career at Caterpillar. I was disappointed that the COVID-19 virus interfered with a return visit in the spring as well as the summer’s reunion. I thought I might slow down a bit after my wife Sue retired a couple of years ago, but my medical device consulting business has kept me busy and I got engaged with a Boston-area

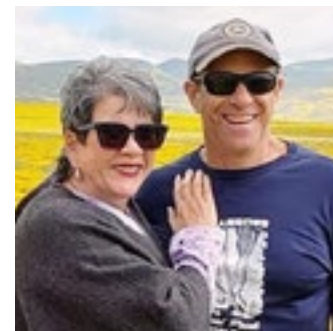
startup last fall as well as with companies in Ireland, Poland, and Israel. Busier than ever but having a lot of fun still solving interesting problems. Sue, Chris, and I still reside in Woodbury, MN, and look forward to life after shutdown.”

Kip Squire (CE 78) will be celebrating his 40th year as a structural engineer with Thompson Dreessen Dorner in Omaha, NE. “Deb and I live on a lake outside of Bennington, NE. We have three daughters and six grandchildren. I enjoy swimming and fishing with the grandkids, and we are disappointed about the reunion this summer, but are looking forward to the 2021 reunion.”

Tom Ochsner (MinE 78) “A cool, dry, long spring in Aberdeen has extended our planting season. Brother **Robert Ochsner (MinE 75)** retired May 19 on birthday 67 after 45 years working in the coal mine. He and cousin **Kent Hoisington (ME 88)** joined me for a fishing trip this first weekend in June. James Pulfrey, son of the late **Roy Pulfrey (CE 76)** and Carrie, and I are planning a fishing trip before the 4th, too. My March Hall roommate **Ron Powell (MinE 78)** passed away on May 25.”

Brian Hardy (MS ME 78) “I am retired and live in Sioux Falls. Family, golf, bridge, hunting, and fishing are great. Work doesn’t get in the way. My wife, Robin Prunty, is a CPA at Avera Hospital in her last year of working. We have five children: Allison, Megan, Marley, Matt, and Ben, and spouses; 11 grandchildren ages 0-8 and are enjoying the time we have to be with them. Life is amazing!”

working as a project manager and providing electrical and PM mentoring to young electrical engineers learning utility and renewable energy systems design.”



1980s

Mark Grebner (ME 80) “I retired from West Plains Engineering on Jan. 1, 2019. In July of 2019, Kathy and I moved to an acreage near Ethan, SD. I’ve been busy with an addition to the house and other updates. 2019 and 20 brought a couple of grandkids into the flock. Grandkids and retirement are a lot alike. If I’d known they were so much fun, I would have had them first.”

Jon Bauer (GeolE 81) “I have done a 180-degree change in careers after graduating from Mines and am currently a carpenter building log homes out of Black Hills Ponderosa Pine.”

Laura Williker (EE 81) “I have changed companies to David Evans and Assoc. in Portland, OR, and am

Al (EE 82) and Pam **Goldschmidt** “We are both retired over four years now and relocated to Ashville, NC, in October. We love it. There is so much to see and experience. After living on the west coast (CA in particular) for pretty much all of our lives (save for my time in SD), an entire new world has opened up to us on the east coast. With the situation we are now in it will be fortunate for us to be able to travel by car to see so much.”

Jim Schieffer (EE 82) “After 33 years as an avionics systems and installation engineer and with my wife’s (Jacqui) permission, I retired in March. While my retirement plan is robust, I have had to make some tweaks to the fun things I planned to do due to recent changes in the environment. Looking

forward to the discovering the 'New Normal' and a second career."

Mike Harris (CSc 83) "My work continues at IBM in North Carolina. Our oldest son is a rising senior at UNC needing to complete distance challenged labs and research. Our youngest son experienced drive-by high school graduation and plans to enroll as an engineering student at NC State."

Chuck Widhalm (EE 83) "Carol and I are disappointed that Reunion 2020 was postponed, but we are planning to be there next year! After graduating, I moved to Dallas for 3-5 years to work for Texas Instruments Defense Group (ended up being 14 years). Every time I looked to move away, I found another job in the DFW Metroplex. After 36 years in DFW, I am semi-retired while dabbling in some entrepreneur activities and working in technical sales for the defense industry and for the wireless carrier market. We have finally moved out of Texas and are now living in northwest Arkansas."

Gene Rye (EE 84) "There is big news on the horizon finally. Come September, I will no longer be with the Boeing Company or any other company other than

SELF. I do plan on pulling the retirement handle while I still am capable of enjoying the finer things of life. I had planned it for mid-June, but certain viral events derailed those plans. I plan on splitting time between the house in Minnesota and the lake house in SD, at least come the thaw next spring."



Vicki Franzen (MinE 85), along with family and friends, organized a 'COVID' style birthday party for her mother, Nancy Christensen, wife of the late **Jim Christensen (GenE 57)**, to celebrate her 85th birthday on April 27. Nancy lives at the Courtyard at West Hills Village in Rapid City.



Scott (CSc 86) and Karleen (ChE 86) James. "The last couple months have been crazy and weird. Lots

of activities have been cancelled, including the PhD defense and graduation at Oklahoma University for son, **Blake James (CEng 12)**. Karleen worked from home for several weeks. At least I could go to Menards and get project supplies, so several home and church projects got accomplished. Karleen made several face masks for us to use; so now I go places in style. I had a Mines t-shirt that was ready to be retired, so with some careful cutting and sewing, I got this one. Looking forward to Friday evening with friends, no more church-on-TV, going to a movie at an actual theater, Corvette Club meetings, and all the other normal summer things we do."



Dave Crumrine (CE 86) "I am happy to report that we will have another Hardrocker this fall. Jake will be pursuing industrial engineering. Older sister **Beth (IE 17)** lives and works in Rapid, so hopefully I will ramp up my visits to the school and area. Interstates is still cranking despite COVID-19. Many of our clients are

essential food producers requiring our help in electrical construction, engineering, factory automation, instrumentation, and now OT. We have a nice crop of Hardrockers here that unfortunately I don't get to see much anymore, but they continue to be a big part of driving our success in many areas of our business and from many different locations. I'm grateful for them every day. **Loren Schmidt (CEng 05), Darin Winterringer (EE 90), Shane Heier (EE 09), Chris Myers (EE 08), Chris Albers (ChE 93), Cory Mergen (ME 16), and Eric Determan (CEng 00)**. Although I support the decision to hold off on the reunion, I was really looking forward to connecting again with the many Hardrockers I call friends. Until next year!" [Note: Dave Crumrine is president of Interstates Construction located in Sioux Center, IA, with offices in eight states.]



Tim Klaus (ChE 87) is the senior managing director of Light Vehicle

Driveline Asia-Pacific for Dana Incorporated, a US automotive supplier. "I am based in Bangkok and lead Dana's Light Vehicle Driveline business in Thailand, China, India, Japan, and Taiwan. Our business in Asia is growing and doing well despite a temporary slowdown because of COVID-19. I have spent 15 of the last 18 years outside the US, also living in Shanghai China twice, Kuala Lumpur, Malaysia and Wiesbaden, Germany. My wife Eiko and I have three children who are wrapping up their college experiences. Our son graduated from Notre Dame in 2019, one of our daughters graduated 'virtually' from NYU in 2020, and our second daughter will graduate from Notre Dame in 2021."

Gary Liknes (EE 89) "We are doing the quarantine thing...sourdough starter and associated recipes: biscuits, waffles, crackers, and pizza crust. I am still working at home at about 80% normal as a contractor for Lockheed Martin. The real news is that both daughters are attending Mines this fall."

1990s

Wendy [Fauth] Allison (MetE 91) "I recently completed my 15th year

of employment at Gerdau Special Steel in Monroe, OH. I continue to work as a product metallurgist providing customer technical support as well as supporting mill operations. After the untimely death of my husband in 2014, I met and married Mark Allison in November 2018. Our family is now comprised of his two children (Justin, practicing law in San Francisco, and Hanna, working as a child-life specialist in Columbus) and my two children (Jillian, starting her junior year at Ohio University majoring in journalism, and Beau, a junior at Perrysburg High School). Our summer will be spent attending Beau's travel lacrosse tournaments (the joys of travel sports!)."



Rafe (ChE 98) and Leticia [Penalosa] **Christopherson** along with their two girls, Elise (14) and Aiyanna (10) continue to live in the Portland, OR area where they enjoy the mild winters

and all of the outdoor activities. Rafe and family traveled to Sweden during the summer of 2019 where Elise and Aiyanna danced at a midsummer festival in the town of Edsbyn. "This was an amazing trip and we are so proud of our amazing girls! At the start of 2020, Rafe took a new role at Intel Corporation as Intel's Global Air program manager."



Mike (CEng 98) and **Jessica (IS 00) [Rayhill] Jager** "Our son, Gage, will be enrolling at Mines this fall to study computer science. Gage received his diploma from Bennett County High School in Martin. Hopefully, little sister, Grace, will become a Hardrocker as well in two years."



2000s

Chuck Cox (ME 00) "I have been a regional market manager with Grupos de Cementos de Chihuahua (GCC) for almost seven years and LOVE that I am back home in South Dakota with friends and family. I have two kiddos who mean the world to me and enjoy every moment that I have with them from watching their sports to jumping on the trampoline to vacations. Ethan will be a senior at O'Gorman HS where he excels in soccer, track, and computer gaming. He shocked me late last year as he told me that Mines is his #1 school right now...so fingers crossed! Camdyn will be a third grader at St. Mary and loves art, soccer, and basketball even though she denies her knack for math. We enjoy spending time at our cabin in the Hills, hiking, fishing, and playing in the creek."



Matt (ME 04) and Meredith Pfister live and work in the Rapid City area. They have been blessed with four amazing children all adopted through foster care. They started foster care in 2014 and are on their way to adopting a 5th foster care child in 2020. Matt is working locally as a facility engineer for the Indian Health Service. Meredith has a full-time job watching all of the children ranging from 3 to 11 years of age.



Kit Talich (EE 06), Rachel, and stepdaughter Emery Menning welcome pandemic daughter Aurora Rose on April 2.



Mitch (IE 06) and Tracy **Nachtigall** welcomed their second child, Molly Dean, to the world in early May pictured here with 2-year-old big sister Sadie.



Cassandra (Degen) Birrenkott (MetE07) married Jake Birrenkott in September 2018 and welcomed baby girl Emmy in August 2019. Cassandra continues as associate professor of mechanical engineering at Mines and Jake is a project manager/engineer for Heavy Constructors. "We are happy to have an outdoorsy girl to share our love of the Black Hills!"



Shawn (CE 09) and **Christina [Quiett] (ChE 12) McFarland** welcomed Finn Michael, born on April 20, 2020. Shawn and Christie live in Denver, CO, and both work for Xcel Energy.



Michael (ME 09) and **Valeri [Eisenbraun] (IS 09) Grave** celebrated the birth of their second son Marshall Dean on 7/3/2019. "We also purchased the Lewis & Clark Resort in Yankton, SD, in 2019 and are running it as our full-time jobs!"

Milea Franklin-Webb (EnvE 10) "My husband, Ken Webb (electrical engineer from Dayton, OH), and I have spent the last few years living in and exploring Japan working for the USAF in the Civil Engineer Squadron at Yokota AB."

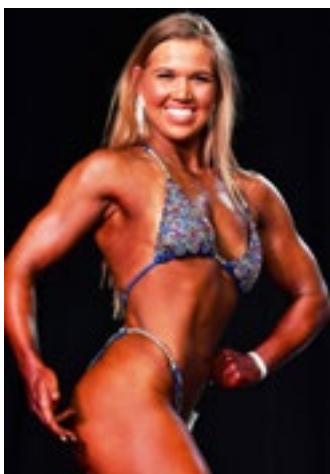
2010s



Steve Sobania (ME 14), Sarah Snelting, **Colter (ME 10)** and **Codie (ChE 12), Burleson, Sarah** and **Brian (IE 10) Davis**, and **Lindsay (CE 11)**, and **Chris (ME 13) Shagla** enjoy a January trip to St. Thomas.

Trevor Moheit (ChE 14) "I joined the Nuclear Propulsion Officer Candidate Program (NUPOC) for the Navy. Training has taken me to New Port, RI; Charleston, SC; Saratoga Springs, NY; Groton, CT; and Pearl Harbor, HI, where I currently work as a nuclear engineer on the USS Charlotte."

Brian (CE 16) and **Lillian [Temple] (CE 15) Freed** are expecting their first baby in early July 2020. "We don't know a gender or anything yet."



Sarah Johnson (ChE 16) “I work as a research engineer at Philadelphia Mixing Solutions and have started my PhD in chemical engineering while continuing to stay competitive in bodybuilding.”



Jacob Swanson (MetE 17) and **Therese Frels (Phys 17)** were married on September 28, 2019. “Members of the wedding party included **Nishanthi Perera (GeolE 17)**, **Luke Malsom (ME 17)**, **Peter Moon (ME 17)**, and **Joel Swanson (Chem 19)**. Many other Mines friends and grads attended the wedding, and everyone had a great evening.”



Alana MacLachlan (ABS 18) “I am a student in the PhD materials science and engineering program at Auburn University. My research focuses on capture of rare cancer cells in the blood for early diagnoses and personalized medicine.”



Matt (EMgt 18), Whitney, and Nolan **Hanley**, along with grandparents, **Jim (CE 76)** and **Kathy (CE 77) Hanley**, welcomed Connor to their family on Mother’s Day.

2020s



Some of the chemical engineers (and their friends and family) still in Rapid City gathered to watch the graduation live stream. Standing: **Joseph Hilsendeger (ChE 20)**, **Michelle Scoggins (ChE 20)**, **Neil Leyda (ChE 20)**, and **Josi Minor (ChE 20)**. Kneeling: **Noah Oehlke (ME 20)**, Grubby, **Eric Spilman (ChE 20)**, and **Jared Cogswell (CE 20)**. The celebration included grilling, games, and a slideshow with memories from the last four years. The group will be heading to their engineering positions in Rapid City; Minneapolis; Green River, WY; Denver; Aiken, SC; and Sioux City.



Noah Oehlke (ME 20), **Joseph Hilsendeger (ChE 20)**, **Michelle Scoggins (ChE 20)**, **Neil Leyda (ChE 20)**, **Eric Spilman (ChE 20)**, **Josi Minor (ChE 20)**, and **Jared Cogswell (CE 20)**.



Nicole Miller (ME 20) Photos from campus visit in October 2014 and just before graduation in April 2020. “I enjoyed the ceremony online in my pajamas! I recently moved to the Minneapolis area and am looking for a full-time position in the area.”



Hannah Stevenson (CE 20) is completing a summer internship in Seattle, WA, and will attend the University of Washington in the fall to earn a MS in structural engineering, but of course, “I will always be a Hardrocker!”



Nicole Schrader (ChE 20) is working at Abbott Laboratories in Plymouth, MN, as a research and development intern in the electrophysiology division. "In the fall I will be attending the University of Washington in Seattle to obtain my master's in applied bioengineering."



Sami Steffek (IE 20) celebrated graduation with her parents, Mike and Nicki, and little sister Ashley, in Fort Collins, CO. She started working on May 26 with Nucor Steel Seattle, Inc., as a safety engineer. "Thank you to everyone who has encouraged me and supported me on my journey!"



Cooper Courtney (IE 20) "I celebrated my graduation at home in Overland Park, KS, with my whole family and will be moving to Denver. I appreciate everyone's support in academics and athletics which allowed me to have a wonderful four years. Go Rockers!"



Hardrocker basketball players **Wilfred Dickson (MinE 20)** and **Logan Elers (MetE 20)** celebrated graduation in Rapid City, SD. Both Dickson and Elers originate from New Zealand, and chose Mines for the high academic and athletic standards. Dickson will be completing his senior year of NCAA eligibility while studying for a master's in engineering management, while Elers will stay at Mines to complete his MS in materials engineering and science.



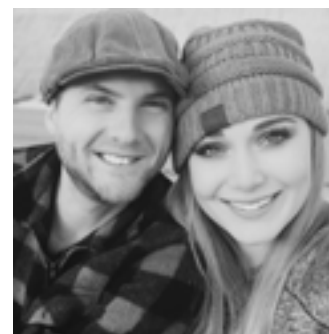
Mitch Sueker (EE 20) celebrated his graduation with his parents, Erik and Carrie, and his sister, Kaia, in Marshall, MN. He has been accepted into the University of North Dakota biomedical engineering master's program and will be a graduate transfer to play DI basketball for the University of North Dakota for the next two years. "Thank you to everyone who has helped me along the way!"



Trey Smith (CE 20) with his mother Melisa Smith, girlfriend Alexis Powell, and father, Marc Smith. "Graduation celebrations included spending time with those I love most and enjoying dinner together with family and loved ones. I will be working for R.G.C. & A in Powell, TN, for the second summer in a row. Post-graduation activities include grad school at SD

Mines during fall 2020 and spring 2021 and finishing my last year as a member of the Mines men's basketball team."

Jack Fiddler (ME 20) celebrated graduation at home in Colorado with a hike with his mom, Cecile. He also celebrated with his younger brothers, Jacari and Jalear, and his dad, Doug. He has accepted a job with the Naval Undersea Warfare Center in Keyport, WA.



Rio Johnson (MinE 20) with fiancée Brianna Kosma "whom I proposed to on Thanksgiving. Now that I have graduated, we plan to remain in Rapid City for most of the summer while the quarantine still remains and our new puppy gets a bit older. After the world returns to normality we hope to move to Montana and work at the Sibanye Stillwater mine in Nye, MT."



Alex Kliche (IE 20) celebrated her graduation with her parents, **Chuck (MinE 74)** and **Donna (MS MTRO 90) Kliche** and **Al Rodriguez (ME 94)** by eating at Curry Masala. Alex is pictured wearing her father's graduation gown from 1974.



Cole Osendorf (MetE 20) "My mom and dad, Brenda and Bob, from Bowman, ND, came to Rapid City to celebrate graduation with me by watching the ceremony, having a nice breakfast, and climbing M Hill to see the senior plaque."



Helen Squyer (CEE 20), Emily Schimbeno (IE 20), Alexia Hodgson (Biol 20), Alyssa Ottman (IE 20), Sam Johnson (ATM 20), Hannah Stevenson (CE 20), and Hannah Dudak (ChE 20) celebrated graduation

by watching the virtual graduation.



Noah McKenzie (CSc 20) "I celebrated my graduation with my fiancé Danielle Wellman in Timnath, CO. I am currently working for Schneider Electric in the field of network and cybersecurity. Danielle and I were married on June 9, 2020. I am excited to be starting my journey in adulting!"



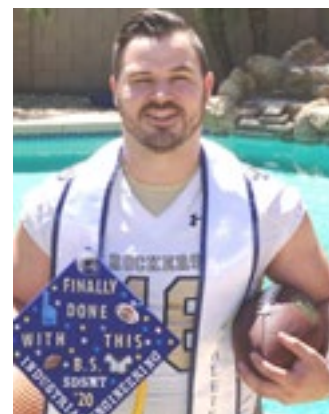
Marcus Martinez (CE 20) is excited to pursue a career in transportation and has accepted employment with Felsburg Holt & Ullevig in Sioux Falls.



Jared (CE 20) and brother Kane **Cogswell** enjoyed graduation in his hometown of Murphy, TX. Jared accepted a position with the Federal Highway Administration in their professional development program in Lakewood, CO. His first project will be in the Redwood National Forest in northern California.



Vanessa Kee (ChE 20) "My family and friends watching the live graduation video with me and cheered as my name flashed across the screen."



Jake Fitzgerald (IEEM 20) has moved back to his hometown of Goodyear, AZ, and is missing the cooler summers in Rapid City. "While looking for an industrial or manufacturing position, I am also training and working out to make a NFL team."



Find more on our Facebook Page
facebook.com/SDMinesCARA

ALUMNI

Gatherings



February 1, 2020. The Salt Lake City Alumni Chapter met at the Legends Grill. Seated: **Doug (EE 82)** and Carron Kopren, Joyce and **Bill (EE 57) Benda**, Rick Hanzlik (CSc 83) and **Bill Nissen (MetE 57)**. Standing: **Oliver Petik (EE 64)**, Irina Rose, Ariana and **Warren (CS 03) Rose**, Kaye and **Terry (ME 76) Meidinger**, Laurie and **Dan (EE 81) Brett**, and **Baron Fidler (MinE 93)**.



January 11, 2020 - Pierre, SD, area alumni celebrated their annual Tailgate



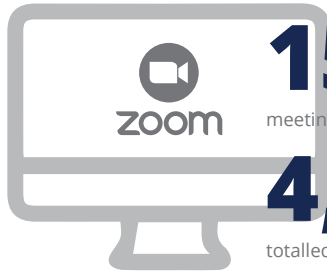
Event Organizers: Seated: **Steve Pirner (CE 72)**, **Brian Gustafson (GeolE 81)**, and **Mike Cepak (MinE 76)**. Standing: **Steve Johnson (CE 83)**, **Jim (GeolE 71)** and **Jeanne (GeolE 79) Goodman**, **Kevin Marton (CE 02)**, **Mike Perkovich (MinE 83)**, **Nayyer Syed (Geol 94)**, and **Marc Macy (GeolE 04)**.

Song Leaders: **Paul Gnirk (MinE 59)**, **Jeanne [Christensen] Goodman (GeolE 79)**, and **Steve Pirner (CE 72)**



By the numbers:

COVID-19 Response at SOUTH DAKOTA MINES



15,600+

meetings between March and August.

4,270,000

totalled minutes.



1,252
liters

of hand sanitizer manufactured on campus for Monument Health and University use.

\$750,000

in CARES Act funding available for students.



57

pages in the Rockers Return Plan.



3,475

South Dakota Mines branded masks delivered free to students, faculty, and staff by the Rocker Shop with 2300+ additional masks in stock.

\$245,872+

Raised in Private Donations by the South Dakota Mines Foundation (CARA) in Support of Students.



84

Frequently Asked Questions Maintained on the Rockers Return Website.

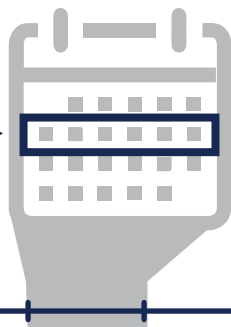


100

More than Mines faculty who took the summer course, "Teaching Online 101" to prepare for Fall 2020.

7 days

in which faculty, staff, and students transferred all classes and course material from in-person to online.



57 cameras

installed in 57 classrooms, labs, and meeting rooms on campus between July 1 and August 19, 2020.





SOUTH DAKOTA MINES

501 E. Saint Joseph St.
Rapid City, SD 57701

Mines In-State Tuition Awards =

**\$4,000/yr.
in savings.**

Children of Alumni

For qualifying students with at least one parent or legal guardian who graduated from South Dakota Mines.

South Dakota Advantage

New freshmen and new transfers from North Dakota, Iowa, Nebraska, Wyoming, Montana, and Colorado pay in-state tuition.

Minnesota Reciprocity

Minnesota students receive in-state rates.

