

MINING FOUNDATION OF THE SOUTHWEST PO Box 42317, TUCSON, AZ 85733 520-577-7519 (office)

MARCH 2022

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CONCENTRATES

2022-23 Officers & Governors Named



Amanda Best - President

Amanda earned a Bachelor's degree in Wildlife and Fisheries Science from the University of Arizona in 2000. Shortly after graduation she became employed by WestLand Resources, Inc., where she currently works as an Associate/Senior Environmental Specialist. She has more than 20 years of experience with environmental permitting. Best joined the MFSW in 2016 and has been on the Board of Governors since 2017. She has also served on the Hall of Fame Committee since 2016.



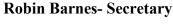
Robert Tracy - Vice President & Hall of Fame Chairman

Robert received his B.S. in Mining Engineering from the University of Arizona. He worked for various mining companies in New Mexico, Colorado and Nevada before returning to Arizona in 2017 with Arizona Mining, now South32. as a Senior Mine Engineer working on underground mine design and scheduling for the Hermosa-Taylor Project, He most recently started at Thyssen Mining as a Senior Engineer and lead for South Dakota. He has been a Board member since 2020 and has been a member of the MFSW since April 2018 and on the Hall of Fame Committee since 2020.



Shawn Hamilton—Treasurer

Shawn is an Arizona native and a graduate of the University of San Diego where he was a scholar athlete (basketball) and has been a Senior Account Manager for Ryerson for the past 14 years. He has 27 years of experience in a sales role for the metal distribution industry having also worked for Thyssen Krupp NA and Integris Metals where he has enjoyed serving an extensive variety of industrial and fabrication clients. He has been a Board member since 2020 and has been a member of the MFSW since July 2018.





Robin received her undergraduate degree in Range Management from the University of Arizona and obtained her A.A.S. Legal Assistant and Petroleum Land Management Certificates from Pima Community College and from the University of Houston, Downtown, respectively. She joined Hudbay Rosemont Copper in 2020 as the Land Manager. She previously was with ASARCO as the Corporate Land Manager and worked as a paralegal for DeConcini McDonald Yetwin and Lacy and Quarles & Brady providing legal assistance and landman services in mining law, natural resources and water rights. She has been a member of the MFSW since 2016 and on

the Hall of Fame Committee and on the Board since 2016.

Terms of Board of Governors

Term expires February 2023

Amanda Best
John Fenn
Rebecca Martinez
Terry McNulty
Deb St. Aubin
Don Taylor
Robert Tracy

Will Wilkinson

Term expires February 2024

Anthony Cook
Shawn Hamilton
Nyal Niemuth
Brad Ross
David Travis
Gene Waken
Chris Wilson
Rod Woodcock

Term expires: February, 2025

Kathy Arnold
Jean Austin
Mark Baker
Robin Barnes
Don Earnest
Yvonne Marshall
David Rhoades
Andrew Soderman

Committee Chairs

Audit & Finance Chair - Herb Welhener

Foresight Chair - Don Earnest

Nominating Chair - Andrew Soderman



Arizona, Copper and Critical Minerals March 31 | Isabel Barton

The Mining Foundation of the Southwest is one of the sponsors of the College of Science Lecture Series. Live from Centennial Hall, explore the origins of minerals, the stories they tell, and the future of critical minerals in society. Take advantage of this outstanding series on minerals and attend either in person or stream it live.

Attending The Series: The lectures are free and open to the public. Doors open at 6:00 pm; the presentations will begin at 7:00 pm and last approximately one hour. Masks are recommended but not required in most indoor spaces.

Livestreaming The Series: Each of the presentations can be viewed live and will be recorded on the **College of Science's YouTube channel.**

The last Lecture will be April 7, Mining In A Greener Future, with Raina Maier.

History of the Arizona Science Lecture Series

In spring 2006, the College of Science launched its first public lecture series on the topic of Evolution. Bringing together educators and researchers from inside the College, this inaugural series was received by audiences that have grown in size and passion ever since. Since that time, the College of Science has provided an annual lecture series on a wide range of science topics that impact our community. Topics have included cosmology, neuroscience, transformative science, life science, evolution and climate change.

In past years, a companion program for educators is offered as a for-credit course with discussion, lecture, and activities to help teach series topics in the classroom. This course is structured for science teachers at the 6-12 grade level, but K-12 teachers at all levels are invited to participate. Pre-service teachers who are not yet certified may also take the course and earn undergraduate credit.

MESSAGE FROM INCOMING PRESIDENT Amanda Best, Associate/Sr. Environmental Specialist Westland Resources





I hope everyone is having a great start to 2022! I am very honored to be the President of the Foundation this year. It is rewarding to have the opportunity to work with the group of people that make up the Foundation's Board of Governors and Hall of Fame Committee. There is something very special about this group and our passion for the promotion of public understanding and education related to mineral resources and the mining industry.

My hope for the Foundation this year is growing success in our fundraising and ability to offer educational opportunities in support of the mining industry. I am excited to see where our synergies will take us with the School of Mining and Mineral Resources at the University of Arizona, SME, AMA, AMIGOS, and others. Membership is steady and we have expanded and diversified our portfolio. Our Outreach Coordinator, Chris Earnest, contin-

ues to impress in his efforts with the Lowell Institute of Mineral Resources at the University of Arizona. The HOF Committee has been considering a very interesting group of individuals as we thoughtfully discuss our line-up of honorees this year. I can't wait for the banquet! It was so great to see a lot of you in person last year. Last year's banquet resulted in the best fundraising success of all time, and I think it will be even bigger and better this year. I look forward to working with all our members in making 2022 a success. I wish you all a safe, healthy, and prosperous year!

Hall of Fame Chair Robert Tracy, Senior Engineer Thyssen Mining





I was fortunate to be able to attend a few of the Mining Foundation of the Southwest Hall of Fame Banquet's while I was a student at the University of Arizona thanks to the generosity of some of its members. After graduation I left Arizona but was still lucky enough to be able to come back every so often to enjoy the Banquet. Every time I left the event I was excited for our industry and inspired by the inductees' stories. As I learned more about the foundation, I started to admire the people that put on this great event all to support fundraising educational outreach while honoring some of the people that make our industry so great. When I moved back to Arizona I was proud to be able to join the foundation and be part of the Hall of Fame Committee. I am excited to be this year's Hall of Fame Chairman and hope to do my part to help make this year's banquet a great one. With the banquet being a large part of the Outreach Program, there is no better way to honor the past and inspire the future of the mining and mineral re-

sources industry while having a great time.



LOWELL INSTITUTE FOR MINERAL RESOURCES

OUTREACH CORNER BY CHRIS EARNEST



Spring brings classroom visits, STEM fairs, a new outreach activity, and a new video partnership

As spring kicks off into full gear across the Sonoran Desert the outreach program is on the road visiting science fairs and classrooms while hoping for a quick end to the pollen season. The program has made new friends at Sonshine school and Nogales Highschool and while keeping in touch with our old partners at Sonoran Trails Middles School and Ironwood High School. The education outreach program continues to partner with Mario Muñoz, the recruitment coordinator, when visiting High School classrooms. This gives students the opportunities to learn about mining and mineral resources and to the mining industry before trying their hands at electrowinning. see themselves with an active role in helping socie-



Ironwood High School seniors learn about career opportunities in

ty obtain those minerals. While students took some time off during their various spring breaks, the outreach program setup tables at several different science fairs.



Chris and John show young learners how we use copper in our everyday lives and how we refine some of that copper at Science City.

Starting in early February the outreach program joined events at the Alfie Norville Gem and Mineral Museum, Mining Day at the Capitol, Family SCIFest at the Tucson Children's Museum, the SARSEF STEM Expo, and Science City at the Tucson Festival of Books. STEM fairs have been extremely popular with the public this spring and at each one the outreach program has attended the table was busy from open to close. The program is looking forward to getting more UArizona student volunteers to assist during next vear's events.

Outreach Corner Cont.



Thermal Imaging cameras set up to capture video during a rockfall test. High school ment of a space mining themed design students will use data from this test during the Summer Engineering Academy.

On March 3rd the outreach program again collaborated with the recruitment program to design a new mining activity for the Advancement of Latinos in Engineering (ALEx) day hosted by the Society of Hispanic Professional Engineers. This year's ALEx event brought 69 nine students from four different Southern Arizona high schools together to experience different engineering disciplines. Dr. Victor Tenorio, Professor of Practice in the Mining and Geological Engineering department, assisted with the development of a space mining themed design activity.

In the activity students design an exploration rover to locate and define a resource deposit, they then pilot their rover over an "asteroid" landscape via remote sensing, choose their mine site, and finally design an extraction method for the deposit they have located. Workshop participants rated the new activity as a great success and the outreach program looks forward to deploying it in high school classrooms. The outreach program would like to thank Dr. Tenorio for his help with the activity design and Dr. Moe Momayez, Interim Department Head of Mining and Geological Engineering, for his support of the project.

The outreach program would also like to highlight a new mineral resources education video project by Dr. Isabel Barton. Titled "How Minerals Made Civilization," in this series Dr. Barton takes viewers on a trip back in time to see how mineral resources have been the building blocks of civilizations, from the Aztecs and early Mesopotamians to the nation states involved in World War II. The series is aimed at a mature audience and adds a great variety to the content available on the Lowell Institute for Mineral Resources YouTube channel. To view the series, follow this link to the series playlist on YouTube.

How Minerals Made Civilization - YouTube





MEMBERS' CORNER

We welcome our newest member!



Timothy M. Schannep, Principal at Retirement Wealth Partners LLC

Tim works with companies to implement, monitor and maintain employer sponsored retirement plans such as 401(k)s, 403(b)s and 457(b)s. He is a second generation financial advisor, completing his licensing and brokerage training at Morgan Stanley in 1995. As a CERTIFIED FINANCIAL PLANNERTM professional, Tim believes in a comprehensive approach to financial planning, including managing tax and estate issues, planning for retirement and providing solid financial advice for the long-term for individual clients. He is a graduate of the University of Arizona with a bachelor's degree in industrial engineering as well as an MBA from Western Washington University. Tim joined the MFSW as he has been providing retirement plans for companies that service the mining industry for some time and he wanted

to have an opportunity to meet professionals in this field. He also have a personal interest as his 3rd great grandfather, Jasper Kimball Gooding, was in the mining industry in Tucson in the 1890s."

HALL OF FAME COMMITTEE MEETING

Date: Wednesday, April 13, 2022



Time: 3:30 p.m. — 4:30 p.m.

M3Engineering and via ZOOM



91% of our Members have renewed! Have you.? Just 22 more to go. Let's get 'er done.

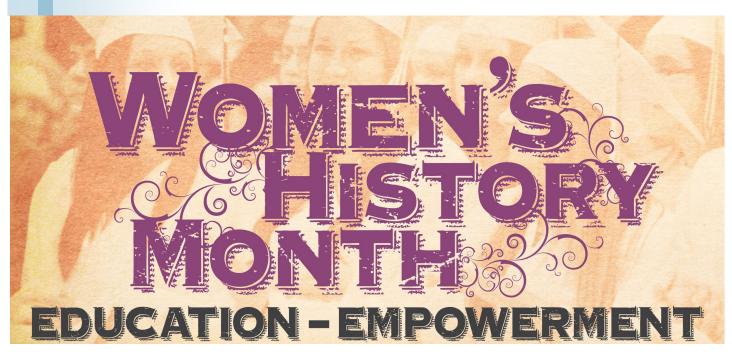


Annual membership renewal is past due. If you have not yet renewed, please renew online or send your payment to the Foundation Office.

Become a Member (miningfoundationsw.org)

Thank you all for your support of the MFSW. Help us get bigger and stronger and healthier. Go out and find a new member. The Outreach Program needs your support!

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In March we celebrate the social, economic, cultural, and political achievements of women. The Mining Foundation of the Southwest is grateful for the wonderful leadership from outstanding women who have led our organization including Susan Wick, Eclipse Mining (President in 1999, 2000 and 2002); Cori Hoag, SRK Consulting (2013), Rebecca Martinez, M3Engineering (2020) and Amanda Best, WestLand Resources (2022).









In addition we recognize the following women who are presently serving on our Board of Governors.







Jean Austin



Kathy Arnold



Robin Barnes



Yvonne Marshall





Poulton Receives Robert Earll McConnell Award

MFSW member Dr. Mary Poulton is Distinguished Professor Emerita in Mining and Geological Engineering and codirector of the Lowell Institute for Mineral Resources at the University of Arizona. She was the first woman to lead an engineering department in the history of the University of Arizona, heading the Department of Mining and Geological Engineering for 14 years. Dr. Poulton has conducted research on artificial intelligence applied to earth sciences for more than 30 years. Poulton is a co-founder and officer of 3 technology companies working in the areas of Al-driven



water management software, safety data analytics, and virtual reality software for training. Poulton is a distinguished member of SME, a past member of the SME Board of Directors, a recipient of the 2017 National Engineering Award, the 2019 Daniel Jackling Award and was awarded AIME Honorary Membership in 2021. She has received the AIME Minerals Industry Education Award, the Ivan B. Rahn Educator Award, and the American Mining Hall of Fame Medal of Merit .This award recognizes those whose beneficial service to mankind by engineers through significant contributions which tend to enhance a nation's standard of living or replenish its natural resources (e.g., discover major mineral supply; by development of an engineering process to extend present minerals supplies; or outstanding engineering contributions that, in other ways, enhance the standard of living).



The National Mining Hall of Fame and Museum recently announced that the 2022 Prazen Living Legend of Mining Award will be awarded to the education outreach program at the Lowell Institute for Mineral Resources (LIMR) at the University of Arizona. The award will be presented to the LIMR during the National Mining Hall of Fame Banquet to be held in October in Denver. The Mining Foundation of the Southwest has been substantially funding the Outreach Program since the program moved to the LIMR in July 2011. Mark Barton, Co-Director of the LIMR, replied to the NMHOF & Museum as follows: "Thank you so much for sharing the wonderful news. We're honored to be chosen for this year's Prazen Award from the National Mining Hall of Fame and Museum. The Lowell IMR team very much appreciates this recognition. It's a testament to our team, particularly Chris Earnest and his predecessors, Pam Wilkinson and Molly Radwany. It is also testament to the long-term commitment and support from the members and sponsors of the Mining Foundation of the Southwest. Without their support and that of many others in the mining community success in outreach simply wouldn't be possible. Chris and, I hope, others look forward to attending the banquet."

Former Outreach Coordinator Pam Wilkinson received the Prazen Living Legend Award in 2014.





MFSW



It was a good turn-out for the Annual meeting (which was a Virtual one) using the ZOOM platform on February 8 with 35 members and 10 guests attending. In addition, 19 of 24 members of the 2021 Board of Governors attended and 19 of 24 members of the 2022 Board were in attendance.

We said thank you to two members who will be leaving the Board, Steve Homes and Allison Moore and welcomed two new Board members, Yvonne Marshall and Deb St. Aubin.

We had presentations from a number of mining companies including ASARCO LLC, Freeport-MacMoRan - Sierrita, Capstone - Pinto Valley, Hudbay - Rosemont Project, Florence Copper and South 32.

We also heard from our Affiliate Associations including Lowell Institute for Mineral Resources, UA Global Mining Law Program, Southern Arizona Chapter of the Arizona Historical Society, Mining History Association, SME Tucson, Arizona Geological Survey, Arizona Geological Society, AMIGOS, U of A SME Student Chapter, Women in Mining - Arizona Chapter, and National Mining Hall of Fame & Museum.

2021 President Andrew Soderman announced the MFSW would transition in 2022 to a new name!

Mining and Minerals Education Foundation (MEF)

The Foresight Committee has been deliberating the issue for several years and it was thought that this would give better recognition to our mission and vision in expanding educational outreach for the mining and minerals industry. The Board of Governors approved the name change in 2021. Much work remains to be done, but staff and committees are hard at work making sure that the transition goes smoothly.



LEGACY FUND

MINING EDUCATION LEGACY FUND

New Ways to Give!

The MFSW is pleased to announce that we have established a fund in partnership with the <u>Community Foundation for Southern Arizona</u> (CFSA) as a philanthropic resource to help us accomplish our mission. The goal of the fund is to be able to fully fund a minimum of one Outreach Coordinator annually and in perpetuity. CFSA has the infrastructure and expertise to accept current or estate gifts on behalf of the MFSW.

You may make a gift at any time designated for **the MFSW** and you will receive a letter acknowledging your gift for tax purposes.

Current Gifts Include:

Cash
Credit Card
Securities
Life Insurance
Tangible Personal Property
Real Estate
Individual Retirement Account Distribution (QCD)

Planned Gifts Include:

IRA Beneficiary Designation Will or Trust Charitable Remainder Trust Charitable Lead Trust Life Estate



Want to learn more?

CFSA staff members are available to meet one-on-one with you at no charge to have a confidential conversation about your giving options. Please contact Mary Louise Luna, Senior Director of Gift Planning at the Community Foundation for Southern Arizona, at 520-909-7559 or mlluna@cfsaz.org for more information.





