



MINING AND MINERALS EDUCATION FOUNDATION
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 520-577-7519 (office)

MARCH 2023

admin@miningfoundationsw.org
[Home \(miningeducationfoundation.org\)](http://miningeducationfoundation.org)

CONCENTRATES

2023-24 Officers & Governors Named



Robert Tracy – President - is presently Senior Engineer at Thyssen Mining and lead for South Dakota. He 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 has been a Board member since 2020 and has been a member of the MMEF since April 2018 and on the Hall of Fame Committee since 2020.



Shawn Hamilton - Vice President & Hall of Fame Chairman - 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 MMEF since July 2018.



Robin Barnes—Treasurer - 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 MMEF since 2016 and on the Hall of Fame Committee and on the Board since 2016.



Kathy Arnold - Secretary - is a graduate of Montana Tech with a BS in Mineral Processing Engineering, BS in Computer Science and a BS in Mathematics with an MS focused in Project and Engineering Management and is a licensed professional engineer. Previously she worked for Asarco, for Hudbay, and now has her own consulting firm, Next Plan, LLC. She is active in SME and Women in Mining. She is currently on the board of the Montana Tech Foundation and the Montana Tech - Metallurgical and Materials Engineering Department, Industry Advisory Board. She has been a member of the MMEF since 2017 and on the BOG since 2019. She most recently completed the Certification Program at the Institute of Corporate Directors, ICD.D, (December 2022) at University of Toronto - Rotman School of Management! She also is an Independent Director for Faraday Copper Corp and is the Director of Sustainability for Auxilium Technology Group.

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Board of Governors

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

Term expires February 2026

Amanda Best
Avi Buckles
Deb St. Aubin
John Fenn
Rebecca Martinez
Robert Tracy
Terry McNulty
Will Wilkinson

Committee Chairs

Audit & Finance Chair - Herb Welhener

Foresight Chair - Don Earnest

Nominating Chair - Amanda Best



April 12th - Pre-Conference Volunteer outreach event at the "Girls Experience Mining Day" for local 7th and 8th grade students with Caterpillar
- Advisory Council Meeting (by invitation only).
- Welcome mixer open to conference attendees.

April 13th - The Main Event

- Jam packed day with panels, speakers, and a workshop focused on diversity, equity, and inclusion in the mining industry plus time to network at our interactive round table discussions following each segment of the day.
- Conference evening dinner at the beautiful Historic Pima County Courthouse with night tours of the Alfie Norville Gem & Mineral Museum

April 14th - Field Trips and Workshops

- Sign up for a field trip including:
1) Freeport-McMoRan Technology Center & Sierrita Mine Tour
2) ASARCO & Discovery Center, Mission mine, and University of Arizona San Xavier Mine Tour
3) South32 Hermosa Development Project Tour
- Professional development workshop at the Tucson Convention Center alternate to tours.

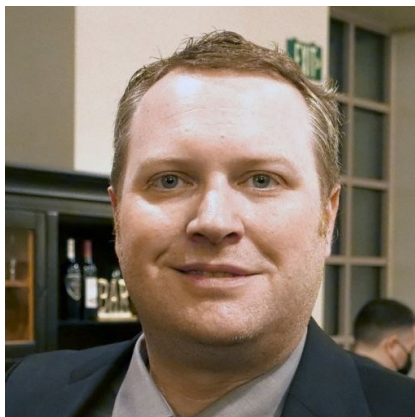
April 15th - Board Meeting - open to all conference attendees

Register now at [Wim 2023](https://wim-2023.com) | [Women In Mining 2023 Annual Conference](https://wim-2023.com) | [Tucson \(wim-usa-2023-conference.org\)](https://wim-usa-2023-conference.org)

MESSAGE FROM INCOMING OFFICERS

President, Robert Tracy,

Senior Engineer, Thyssen Mining



It seems like 2023 is already flying by and our Hall of Fame Committee is already busy planning for the 41st Annual Mining Hall of Fame Banquet & Fundraiser. We are in the middle of finalizing this year's slate of award recipients and are excited to build on the success of last year's banquet, which had the highest number of sponsorships ever. The banquet sponsorships are used to support the Educational Outreach Program lead by Chris Earnest, which as you will see in his update is continuing to do some fantastic work. I am proud to be a part of this foundation and its contributions to educating the public about our mineral resource industry. In addition to educational outreach, our donations to student chapters, university departments, vocational training programs, and scholarships reach and impact students and groups across the country. This year I see a great opportunity for the Foundation to continue to have an even greater impact with our mission at large as we

continue with transitioning from our historic regional association. Some things that have happened and are happening towards this transition includes the foundation's continued rebranding, a new logo, updated website, and support from more of our industry partners. With the growing support from our sponsors and partners, we also need to grow our support from within. To ensure our impact grows, membership recruitment will be as important as fundraising. With our future and experienced leaders our foundation will be able to draw from the breadth of experience and innovation that represents the modern mineral industry. Thank you to all our sponsors for your support for the Mining and Minerals Education Foundation and our mission. I also would like to thank our members who serve on committees. It is with everyone's hard work that the Foundation continues its mission. I am honored to serve as this year's President for the Mining and Minerals Education Foundation. Even though 2023 is flying by, it is shaping up to be a great year for the Foundation and our industry."



Hall of Fame Chair

Shawn Hamilton

**Senior Account Manager,
Ryerson**



It is my privilege to serve as the Hall of Fame Chair for the Mining and Minerals Education Foundation for 2023. Our collective mission to educate students and the general public about the importance of mining and minerals has never been more important and relevant than it is today. In simple terms what many think of as in the category as the "old" economy of mining metals and minerals is slowly starting to become recognized as a primary pillar of support for the new economy and all the promise that it holds for green energy, advanced manufacturing, EV's and all the rest. The process of recognizing the importance of mining, although gaining some momentum, still needs focused effort to keep it on track. This is where the Mining and Mineral Education Foundation comes in. Through our collective stewardship and efforts, we an exceptional opportunity to support outreach and education through the talented efforts of Chris Earnest and his team at the University of Arizona along with many other worthy causes. The primary method of financial support is the fund raising that is done through the HOF banquet that recognizes the people and partners that make and have made the industry what it is today. The goals of the 2023 HOF banquet are \$110,000 in sponsorships, made up of at least 60 sponsors and 465 sold tickets. Let us take advantage of the opportunity that is before us, making the very most of it while building relationships and community along the way.



School of Mining & Mineral Resources

OUTREACH CORNER BY CHRIS EARNEST



A busy spring in the classroom, at STEAM Fairs, Science Events, and at the SX Mine.

While the Southern Arizona spring brought snow and rain to the desert this year it also brought the outreach program to present at 45 classrooms, STEM events, mine tours, and workshops. The busy schedule meant that Chris, John, and Sofia at times had to split up to be at multiple events on the same day. But thanks to the materials developed with the support of the Mining and Minerals Education Foundation, they always had something great to show young



John and Sofia show young learners at the Children's Museum Family SciFest 2023 how mineral resources make their lives possible.



While John and Sofia enjoyed the spring weather at Family SciFest, Chris headed to the Park Place Mall for "Engineering in the Mall"

John headed to downtown Tucson for the Children's Museum Family SciFest while Chris setup a table at the Park Place Mall for Engineering Week's "Engineering in the Mall" event. The young learners at Family SciFest got to discover how mineral resources are used to create the

learners and the public how important mineral resources and mining are to everyday life. The number of public Science events in the spring has grown and the outreach team works hard to cover them all. This year Sofia and



John helps attendees at Science City as they try their hand at electrowinning.



School of Mining & Mineral Resources

Outreach Corner Cont.

things we use everyday. At the Mall, teens and pre-teen got to experience how metallurgists use chemistry to take rocks apart and obtain metals society needs. The team got back together for the Tucson Festival of Books Science City event. During the two days of the Festival the team talked to over 600 community members about mining in Arizona, careers available in the mining industry, and how minerals are used to build our world. The team once again hosted our popular elector-winning activity for festival goers to try their hands at metallurgy. The whole team was very happy to be joined across the aisle by the Women In Mining Arizona Chapter. It was great to have more groups to represent the industry at such a well attended event.



Sofia shows a family at Wade Carpenter Elementary School STEM night how chemistry is used to extract copper.

From Wade Carpenter Elementary school, a stone's throw from the border, to Sonoran Trails Middle School in the far north of Phoenix, the outreach team has been enjoying helping students discover minerals and mining in these informal settings. The mariachi clubs and jazz bands are just icing on the cake of a wonderful evening.



Adjunct Lecturer Edward Wellman shows high school students how geotechnical engineers keep miners safe.

Classroom presentations for high school, middle school, and elementary school continue to be extremely popular. In a change from previous years, educators often request a presentation on careers in mining and minerals along with a hands-on activity. Educators want their students to understand the science and engineering concepts behind mining as well as how studying said concepts can lead to a fulfilling career.

To help students better understand the options available to them the education outreach program continues to collaborate closely with the School of Mining and Mineral Resources Recruitment Outreach Program. One popular option for high schools and middle schools has been a follow-up tour of the San Xavier Underground Mining Laboratory. During the tour

students are shown how many different professionals come together to design, operate, and reclaim a mine. As summer fast approaches, the program continues to field requests for classroom presentations and STEM event participation. It is the support of the Mining and Minerals Education Foundation that allows the team to respond to those requests with a hearty "We can't wait to meet your students!" Thank you very much to the foundation for continuing to make our travels possible.

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MEMBERS' CORNER



We welcome our newest member!

Eric Ownby, Business Development Manager at Ames Construction

Eric is a business development professional with more than 25 years experience in mining and materials. With technical expertise in construction materials, quarry operations, and technology. He holds a BS and MS in Civil Engineering from the University of Tennessee, Knoxville and served 10 years in the Navy. Eric is also active in Folds of Honor, a nonprofit organization that helps provide the families of fallen and disabled service members and first responders educational scholarships.

HALL OF FAME COMMITTEE MEETING

Date: Wednesday, April 12, 2023

Time: 3:30 p.m. — 4:30 p.m.

M3Engineering and via ZOOM

RSVP: admin@miningfoundationsw.org

or 520-577-7519



77% of our Members have renewed! Have you.?

Just 30 more to go. Let's get 'er done.

Annual membership renewal is past due.

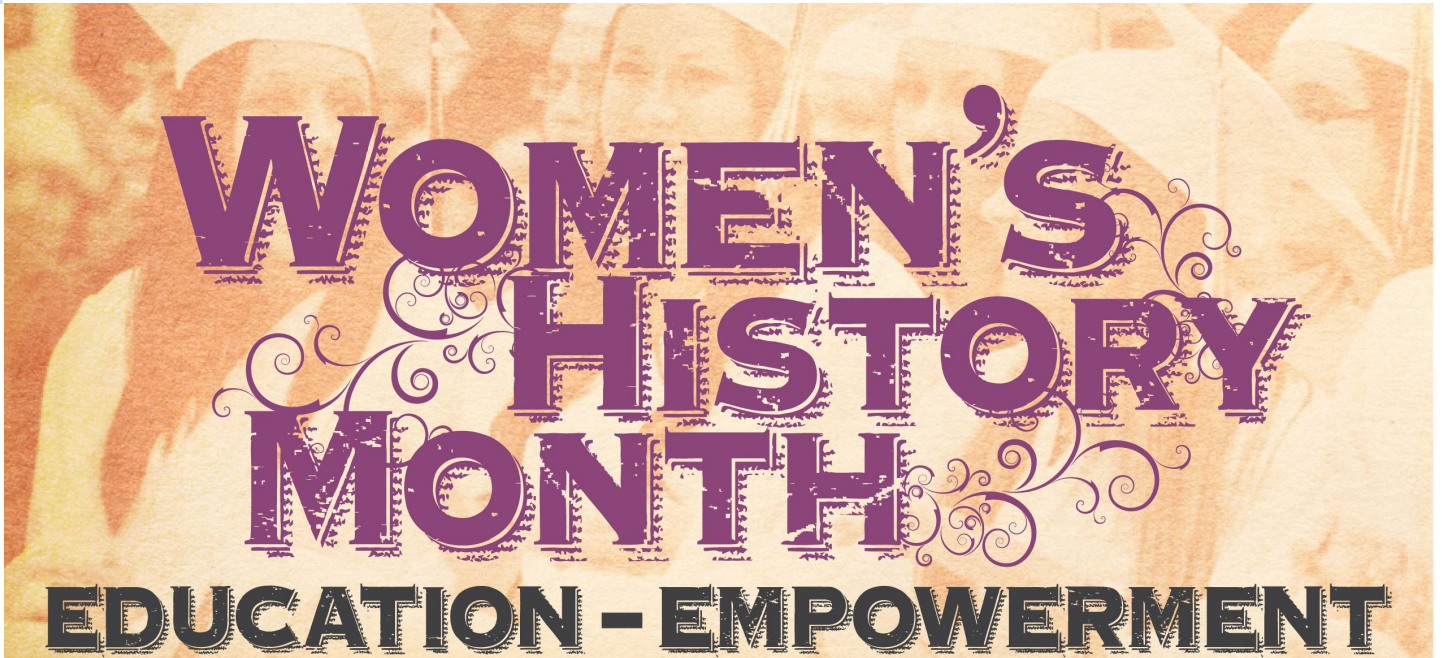
If you have not yet renewed, please renew online or send your payment to the Foundation Office.

[Become a Member \(miningeducationfoundation.org\)](http://miningeducationfoundation.org)

Thank you all for your support of the MMEF. Help us get bigger and stronger and healthier.

Go out and find a new member.

The Outreach Program needs your support!



WOMEN'S HISTORY MONTH

EDUCATION - EMPOWERMENT

In March we celebrate the social, economic, cultural, and political achievements of women. The Mining and Minerals Education Foundation is very appreciative for the wonderful leadership from outstanding women who are presently serving on our Board of Governors.



Kathy Arnold



Jean Austin



Robin Barnes



Amanda Best



Yvonne Marshall



Rebecca Martinez



Deb St. Aubin

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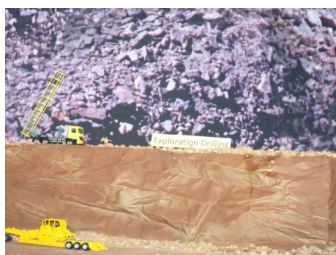


DIARAMA—MINING MODEL

BULLION PLAZA

[Bullion Plaza Cultural Center & Museum – In Historic Miami, AZ \(bullionplazamuseum.org\)](http://bullionplazamuseum.org)

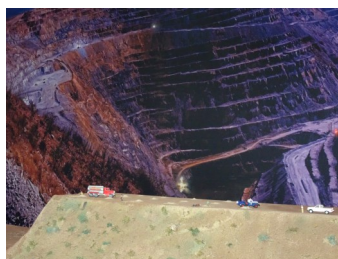
Work on the diorama is pretty much done. Our volunteers are now upgrading the videos which provide a great summary of the open-pit porphyry copper mining process.



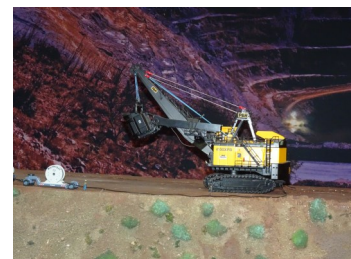
Exploration Drilling



Blast-hole Drill



Blasting



Shovel



Truck Haulage



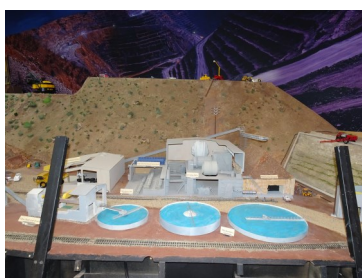
Primary Crusher



Grinding Mills & Flotation



Concentrate Storage



Mill Thickeners



Heap leaching



Solvent Extraction



Flash Smelting



History: The model was originally developed by the Mining Foundation of the Southwest and was displayed at the Arizona Mining and Mineral Museum until the museum was closed by then governor Jan Brewer in 2011. It was then put on display at the North and East Valley Technical Institutes in the Phoenix area. School expansions forced the model into storage. In 2015, The Arizona Historical Society agreed to display the Model in the Natural Resource section of their museum at Papago Park, Tempe AZ. The Model was then moved to the Papago Park facility by Freeport-McMoRan, upgraded and refurbished where it was displayed until the summer of 2022.



MMEF



It was a good turn-out for the Annual meeting which was both in-person and virtual using the Teams platform on February 15 with 39 members and 5 guests attending. In addition, 18 of 24 members of the 2022 Board of Governors attended and 18 of 24 members of the 2023 Board were in attendance.

We said thank you to Don Taylor who was leaving the Board, and welcomed new member, Avi Buckles.

We had presentations from a number of mining companies including ASARCO LLC, Freeport-MacMoRan - Sierrita, Hudbay - Copper World Project, Florence Copper, Arizona Sonoran Copper and South 32.

We also heard from our Affiliate Associations including UA School of Mining & Mineral Resources, UA Global Mining Law Program, Mining History Association, SME Tucson, Arizona Geological Society, Arizona Geological Survey, AMIGOS, Arizona Mining Association, U of A SME Student Chapter, Young Mining Professionals—Arizona, Women in Mining - Arizona Chapter, SABC and National Mining Hall of Fame & Museum.

The Foundation is in good fiscal shape and was able to weather the downturn in the stock market.

Chris Earnest reported on the Outreach Program and its successful year.

Donations to organizations were at an all time high with over \$151,000 being distributed over the year.

We have successfully transitioned to our new name.

The logo contest has a winner and we will be rolling out a new logo in the coming months.

27th Annual SME Operators' BBQ

Saturday, April 22 · 10am - 3pm MST, San Xavier Mining Laboratory 6200 W. Ocotillo Ranch Rd. Sahuarita, AZ 85629

Come to the 27th Annual UArizona SME Student Chapter Operators' BBQ!

- This is an event held every year to bring students, MGE faculty, industry professionals, and their families and friends together.
- New UA SME officers will be officially appointed, and an update on chapter activities will be given.
- Tours of the underground student mine will be provided and a small mining games competition will be held.
- Food and activities will be provided.
- **Free Admission thanks to sponsors.**
- Please sign up using our Eventbrite for attendance estimations: <https://lnkd.in/g8pFEAXT>

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LEGACY FUND

MINING EDUCATION LEGACY FUND

New Ways to Give!

The MMEF is pleased to announce that we have established a fund in partnership with the [Community Foundation for Southern Arizona](#) (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 mluna@cfsaz.org for more information.

