

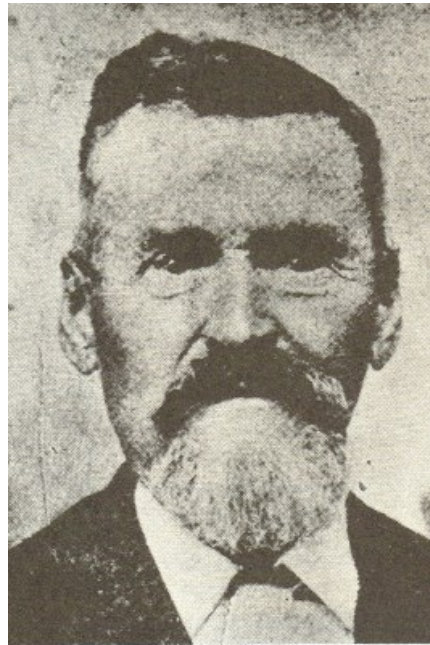


MINING FOUNDATION OF THE SOUTHWEST
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September, 2018
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CONCENTRATES

12/1 Awards Banquet to Induct the 2018 Mining's Past Honorees



Andrew J. Prichard
 (1830 -1902)
Explorer and Prospector

Andrew J. Prichard was born in Connecticut in 1830 and served in the Union Army. After the Civil War, he prospected his way through New Mexico, Colorado, Montana and on into Idaho. He was one of the early users of the reopened Mullan Road, which provided a way across the Bitterroot Mountains into Idaho. Here, he first worked as a logger.

In 1879, he and Samuel Thomas Irwin, another seasoned prospector, joined forces and prospected, sometimes as a team, other times separately. In 1883, Prichard announced the discovery of gold in the creeks and tributaries of the Coeur d'Alene River. This discovery came at a most opportune time for the Northern Pacific Railroad, who seized upon the discovery to stimulate ticket sales on the newly built railroad which was within 25 miles of the discovery.

In addition to working placers along the creeks, Prichard also has the distinction of locating the oldest lode claim in the Coeur d'Alenes, the "Evolution", staked and recorded in 1882. People who came found better prospects in veins carrying substantial silver and lead values than in the spotty placer deposits. This led to the development of the mighty Coeur d'Alene mining district. Prichard died in Murray, Idaho in October, 1902.

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FRANK WILLIAM PEIRCE AND E.A. CAPPELEN SMITH

(1865 - 1944)

(1873 – 1949)

Metallurgical Innovators

Cappelen Smith was born in 1873 in Norway. He grew up as the eldest son among nine children. He was educated as a chemist at the Norwegian University of Science and Technology. He immigrated to the United States in 1893.

Born in 1865, William H. Peirce was an American civil engineer and metallurgist. Pierce Graduated from Stevens Institute in 1884, just before he was nineteen, and finishing in one year the requirements of his Junior and Senior years.

Pierce joined the Baltimore Copper Smelting & Rolling Company in 1890, becoming vice president in 1895 and later, president of the company. Cappelen Smith was employed as head metallurgist for the company from 1901–10.

At that time, the Manhès-David process was primarily used for copper-converting. It had been directly derived from the Bessemer process used in the steel industry. The basic slag produced during the blowing combined with the acid silica refractory lining, thereby causing a very short lifetime of the lining.

Mr. Smith suggested basic converting for the treatment of copper matte in the belief that the converting to blister could be conducted in one vessel with the production of metal and an exceptionally clean slag and substantially increasing the life of the refractory lining.

In 1908, the first experiment was made in a basic lined 25-ton reverberatory furnace with blow pipes through the side walls and roof. All was very crude, but the indications of success led to the design of the Peirce-Smith converter. The process allowed an increase from 10 to 2500 tons of copper produced without relining the converters.

12/1 Awards Banquet to Induct the 2018 Mining's Past Honorees



Medora Hooper Krieger

(1905 - 1994)

Pioneering Geologist

Medora Hooper was born in 1905 in Ticonderoga, N.Y. She earned her bachelor's degree in geology from Vassar College in 1928, then attended Columbia University for her master's and PhD degrees. There, she met her future husband, Philip Krieger, who had completed his PhD in geology and was an assistant Professor of Geology. They were married in 1931. She worked for the New York Geological Survey until 1939. Following the death of her husband in 1940, she taught at Mount Holyoke College in Massachusetts from 1942-1944.

Krieger joined the USGS in 1944. At that time the Survey did not allow women to work in the field, thinking the work was too hard and rough for a woman. In 1947, the Survey began to send its workers to various field locations. She became one of the first female Field Geologist when she was sent to the Southwestern Geology branch in Prescott, AZ.

The Survey was studying copper deposits. Her original assignment was to map around the Jerome, but not in the mine itself because the miners objected to women. She did what was considered a man's job in a man's world. She was an inspiration to other women geologists of her time.

By 1952, only 2 percent of the geoscience workforce in the USGS was female and even fewer were field geologists. Krieger became one of the most prolific USGS geologic mappers. She is known for her 35 years working in the State in Arizona, where she mapped a total of 21 topographic quadrangles.

Medora Krieger died at age 89 in 1994 in Prescott.

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ROBERT B. SCANLAN

(1936– 1972)

Hoistman and Hero

Robert Scanlan was born and grew up in the southern Idaho farming town of Gooding. In 1955, he moved to Wallace. There, he married his wife Eva in 1956. They had three children. He advanced his career at the Sunshine Mine from mucker to miner to hoistman.

The Sunshine Mine is deep, and essentially is a mine within a mine. Access from the surface was through the Jewell Shaft, which extended from the surface to the 3700 foot level. Approximately one mile from the Jewell shaft was the #10 shaft, which ran from the 3100 level to the deepest working level, at the time 5600. Most of the mine's production came from areas served by the #10 shaft.

Principal escape ways were the 3700 level and the 3100 level, both connecting with the Jewell shaft. There was also an escape way on 3100, which connected to the Silver Summit mine. Because of the importance of the #10 shaft in evacuating the mine, two hoistmen were in attendance, in the unlikely event of something incapacitating the operator.

On May 2, 1972, a crew of 178 was working underground. Operations continued normally until about noon, when fire was reported. Smoke soon appeared in the hoist room. Self-rescuers were donned, but smoke began to overpower the hoistmen. Ira Silger, the senior hoistman, had respiratory problems. Bob Scanlan told him to leave and he would continue to operate the hoist. Silger escaped the mine. Bob Scanlan heroically gave his life in attempting to hoist the crew to safety.



Video Shoot



Steve Pender and his crew from Family Video Legacy prepare to shoot the interview with Medal of Merit recipient Hugh Miller in preparation for the 36th Annual Hall of Fame Banquet.



Board Meeting

BOARD MEETING AND **HALL OF FAME COMMITTEE MEETING**

Date: Tuesday, October 9, 2018

Time: 3:30 p.m. — 4:30 p.m. HOF Committee Meeting

Time: 4:30 p.m. — 5:30 p.m. Board Meeting

Place: ASARCO Training Center, 1150 N. 7th Ave., Tucson, AZ

RSVP: admin@miningfoundationsw.org OR 520-577-7519

Outreach Corner by Pam Wilkinson

MFSW Outreach Coordinator Activities: Mid-July- Mid-September 2018

School is back in session and visits are going very well. Currently there are only about 11 dates open for school visits between now and January. I have spent 12 days in schools, taught 50 classes in which there were over 1300 students and 13 teachers/adults. I would say the year is off to a very good start. .

Back in July, after summer camps were completed, time was set aside to provide Molly with tours of several mining properties in Southern Arizona. The properties we toured are: Arizona Mining (South 32), Bowie Zeolite (St. Cloud Mining), Rillito Cement Plant and Quarry (Cal Portland) and Pima Mine (ASARCO). Arizona Mining (now owned by South 32), provided us with the opportunity to see a property at the position between exploration and development. It is so very exciting to see what a great job they are doing, in particular all the reclamation work completed to date on the tailings left by the historic mining in the district. They are being very great stewards of the land. In addition, they take safety very seriously and provided us with safety training prior to our being allowed to tour the site. Special thanks to Don Taylor for arranging the tour and to Jack Mueller and David Peake for leading us on the tour.

Dan Eyde from St. Cloud Mining, provided us with a great day out at the Bowie Chabazite mine. Because of sufficient inventory they were not actually mining when we were there. It was interesting to see how they stockpile the ore and Dan did a great job of explaining the mining process and the many uses of the zeolites mined in Arizona. In particular, the fact that our zeolite was helpful in the cleanup after the disaster at Fukushima Power Plant in Japan. The discussions industrial minerals mining in Arizona was very interesting.

David Bittel, plant manager at the Rillito plant arranged for Bill Phillips and Jared Stokes to give us a tour of the quarry and the cement plant seeing the whole process from rock to product.

Sandra Elizondo arranged with the Bjorn Meyer to secure a tour for us of the ASARCO Pima Mine. Greg Grochowski took us on the tour providing several spots around the pit to see the operation and answered all the questions about equipment (size, numbers, cost, etc.), tonnage moved daily, number of employees, and information about all the reclamation they are doing and plans to expand their tailings pile. We also were able to see the mill and flotation tanks. It was a great over-view of copper sulfide mining and processing in Arizona.



Pam and Molly at ASARCO



Golden Egg Mining 2018



Traveling Museum

Outreach Corner by Pam Wilkinson (cont.)

School	City	Students	Adults	Date	days	classes
Ironwood Ridge HS	Oro Valley	149	1	8/24/2018	1	6
New River Elem.	New River	31	2	8/29/2018	1	2
Mohave HS	Bullhead City	286	3	9/10-11-2018	3	11
Bogle Jr Hi	Chandler	130	1	9/13/2018	1	4
Snowflake HS	Snowflake	165	1	9/18/2018	1	6
Blue Ridge Jr Hi	Pinetop	80	1	9/19/2018	1	3
Sonoran Foothills	Phoenix	108	1	9/20/2018	1	4
Aprende Jr Hi	Mesa	308	2	9/21,24/2018	2	10
Ironwood HS	Glendale	90	1	9/25/2018	1	4
Total		1347	13		12	50

MFSW Outreach Coordinator Activities: Mid-July- Mid-September 2018

Christina Cook from Modular Mining invited me to do a presentation for their employees during lunch. They are partnering with a local school to provide an after school STEM program on coding and wanted some help on how to interact with 5th grade students. About 40 employees showed up to the event and all were very pleased with the information I supplied. It can be daunting to interact with school age people when you haven't done it before. We also discussed on what to do when providing presentations in high schools, a very different skill set from elementary. I look forward to continuing to work with Modular as they provide employees to go into the local schools.

The meeting with the Girl Scouts went very well, as we work together to create a mining badge/patch for the scouts of southern Arizona. Molly joined me on this event and is helping put together some more activities for the scouts. With the help of Linda Ross, I had a booth during the Girl Scout Block Party at the Girl Scout headquarters in Tucson. The girls tried their hand at Copper BB mining with different types of equipment and decided which one worked best.

Boy Scout activities are also still in the mix. I am on the Scouting sub-committee of the MEC and they are working on plans to have a booth at the World Scouting Jamboree in summer 2019. The final decision about participating in this event will be made at the midyear SME meeting. I would like to thank the Foundation for sending me to the past 3 National Boy Scout jamborees. They were wonderful events from first surveying the interest in having a mining merit badge (2010), to advertising the upcoming merit badge (2013), to helping scouts earn part of the badge (2017). The Mining in Society Merit Badge workshops are going well, the first one of the year was at Bagdad. There were 27 scouts and 23 adults who participated in the event. These workshops are very well received by the scouts and the parents. Compliments include statements like this: "This is one of the most well run, organized and engaging merit badge workshops we have ever attended." These additional events added another 200+ youth and adults who have been exposed to the benefits of mining through this program.

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Outreach Corner by Pam Wilkinson (cont.)

MFSW Outreach Coordinator Activities: Mid-July- Mid-September 2018

Organization	Location	Attendees	Date
Summer Engineering Camp	Tucson	39	7/11-12/18
Summer Engineering Camp	Tucson	40	7/25-26/18
Modular Mining Lunch Bunch	Tucson	40	8/14/2018
Girl Scout Block Party	Tucson	120	8/25/2018
Mining in Society Merit Badge Workshop	Bagdad	50	9/22/2018
Total		289	

MEMBERS' CORNER

We now have 49 new members. Thank you all for your support of the MFSW. Total membership is at 128. Go out and encourage your associates to join. On behalf of David Travis, our 2018 President, the Foundation wishes to extend a warm welcome to:

Richmond Fenn- Fenn is currently the General Manager of Pueblo Viejo Dominicana Corp. He previously worked at Freeport, Phelps Dodge and Cyprus and is a graduate of the University of Arizona in Mining Engineering..

Molly Radwany - Radwany is the new Outreach Coordinator at the University of Arizona IMR.

Deb St. Aubin - St. Aubin is an experienced Event Coordinator skilled in Global Event planning specializing currently in Mineral Exploration, Geology, and Mining. She is an Army veteran.

MEET YOUR GOVERNORS



Mark Baker (Term expires 2019)

Along with his primary role at CheckMark Consulting, Mark Baker is a principal at Phoenix Drill Control, where he is responsible for corporate development and strategic marketing of advanced autonomous systems for blast hole drills. Baker is a member of the governing council of the Global Mining Standards & Guidelines Group, as well as a member of the Industry Leadership Board of the UA Department of Mining and Global Engineering. He has been on the Board of the MFSW since 2011, was President in 2014 and HOF Chair in 2013.



Robin Barnes (Term expires 2019)

Barnes 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. At ASARCO, Barnes is responsible for the management of all company land, title and water records, owned or leased and serves as the company's liaison with government agencies and landowners. Prior to her employment with ASARCO, Barnes 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 and on the Board since 2016.

Don Taylor (Term expires 2020)



Donald Taylor has more than 25 years of mineral exploration experience with precious and base metals on five continents, taking projects from exploration to mine development. He has worked extensively for large and small cap companies, including BHP Minerals, Bear Creek Mining, American Copper and Nickel, Doe Run Resources, and Westmont Mining Company. Mr. Taylor has a Bachelor of Science degree in Geology from Southeast Missouri State University and a Master of Science degree from University of Missouri at Rolla. He is a Licensed Professional Geologist in several eastern and western states and a qualified person as defined by

National Instrument 43-101. He has been a member and on the Board since 2017.



December 1, 2018 Hall of Fame Awards Banquet Information

SPONSORSHIP OPPORTUNITY IS STILL AVAILABLE

Sponsorships are offered at 4 levels: Diamond (\$10,000), Platinum (\$5,000), Gold (\$2,500) & Silver (\$1,000). All sponsors are recognized on the Foundation's website, press releases, banquet program and during the banquet ceremony.

TICKET SALES

Voting, Silver and Gold members in good standing are extended 2 member pricing banquet tickets at \$200 per ticket.

STUDENT TICKETS

If your company would like to earmark some of their tickets for University of Arizona students or purchase a table for students and faculty, please let me know. Last year we had over 50 students and faculty attend the banquet due to the graciousness of our members and sponsors.

HOTEL RESERVATION

Please reference SME/MFSW/Summit when booking reservation by phone.

1-877-622-3140

For additional information, please go to: www.miningfoundationsw.org

