



MINING FOUNDATION OF THE SOUTHWEST
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MAY 2020
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CONCENTRATES

2020 American Mining Hall of Fame Slate of Honorees

Main Inductee:



Lukas Lundin
Chairman
Lundin Group of Companies



Medal of Merit:



Emily King
Chief Executive Officer
Global Venture Consulting

Medal of Merit under 40:



Jonathan Jazwinski
Mine Operations Manager, Morenci
Freeport-McMoRan

Industry Partnership:



HEXAGON

Hall of Fame Chairman

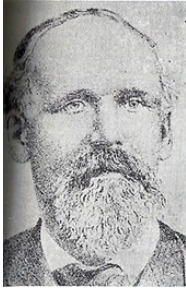
Andrew Soderman, Mine Manager, Freeport McMoRan, Sierrita



The 38th annual American Mining Hall of Fame Banquet is fast approaching, December 5 to be exact. Our fund raising efforts are in full swing with numerous committed sponsors. Even though the mining industry is in a little bit of a rough spot we are confident that our dedicated sponsors will continue to support the Foundation. The success of past banquets has proven that the Mining Community is truly a tight knit group that supports one another through the good times and bad times. A well deserving group of honorees headlined by Lukas Lundin, Chairman of the Lundin Group of Companies, will be recognized at this year's banquet. I am excited to hear their unique and innovative stories about their contributions to the mining industry. The banquet is the major source of funding for the Outreach Program. The Outreach Program educates the youth of our communities in the positive impacts that the minerals industry has on the world. Each year the program educates over 10,000 students around Arizona in the classroom and at various events. Updates for both the banquet and Outreach Program are posted on the Mining Foundation's website. Thank you in advance for the continued support from all of our members and sponsors in making this year's banquet a success.



2020 Inductees from Mining's Past



Noah S Kellogg (1831 -1903) was a prospector and carpenter. While looking for someone to give him a grubstake, he ran into two business men who loaned him enough money to buy grub and they loaned him a jackass (burro) to carry the tools. Coming out on the south fork of the Coeur d'Alene River, he continued south up Milo Gulch and ended up about 1,000 yards above the present City Hall of Wardner. During the night, the jackass wandered off. Kellogg spotted him way up high on the hillside where he saw the sunshine glittering on something which turned out to be a large outcropping of galena (lead ore) which was the discovery of the great Bunker Hill and Sullivan mines on September 4, 1885.



John Barry "Black Jack" Newman (1862 – 1928) was the locator of the claims that became Miami Copper Co. His faith in the property was demonstrated when he tore up a telegram instructing that shaft sinking be stopped. A couple rounds later, the shaft broke into 3% copper. Newman first worked in the Old Dominican Mine as a mucker. Next he grubstaked a silver mine with a partner, who attacked him with a knife. His nickname "Black Jack" probably came from his excellent luck in cards. Newman had a "nose for ore. He parlayed the sale of mines and stakes into a real estate empire. His Globe, Arizona companies included: The Inspiration Consolidated and Miami Copper Mines, and the Tippit Ranch.



Lemuel Coove Shattuck (1866 – 1938) was born 3 miles south of Erie in Erie Co., Penn. He arrived in Bisbee in 1888 and was involved in several business ventures. He was a prominent banker (Miners and Merchants Bank of Bisbee), a mine owner/financier (Shattuck Arizona Copper Co.), lumberer, proprietor of the St. Louis Beer Hall in Brewery Gulch, and cattle rancher in the Bisbee community. The Shattuck Mine located in Warren and incorporated in March 1904, was an extraordinarily rich underground copper mine. The Shattuck Mine merged with nearby small producer, the Denn Mine, in 1925 becoming the Shattuck-Denn Mining Co. The property was bought out by the Phelps Dodge in 1947.



Albert J. (Al) Perry (1930 – 2013) born in White Sulphur Springs, West Virginia. Al was an Exploration Geologist that came up through the Uranium Boom of Southern Utah in the 1950's. Starting in 1976 he worked extensively abroad in Australia, Fiji, Ghana, and Eritrea. Al was a passionate person and believed everyone should help the less fortunate people in the World; Perry was very active in the MFSW serving as President in 2001, Vice president in 1991 and 2000 and was on the Board in 1991, 1993, 1994 and 2000 – 2012.



JW MARRIOTT TUCSON STAR PASS

Plan to join the Mining Weekend (12/4 - 12/7/2020) cohosted by MFSW, SME Arizona Conference, UA SME Students and AMI-GOS. Attendees will be extended a special room rate to be announced, discounted \$85 golf rate and a 20% spa only discount. The contracted cutoff date for reservations at the group rate is Friday, Nov. 4th.

PRESIDENT'S CORNER

MESSAGE FROM PRESIDENT, Rebecca Martinez



Our Arizona Stay-at-home orders are about to lift, and we are either working from home or have taken some time to be at home to stay safe. Many of us have transitioned from working full time in the office or the field, to working from home and also managing more hats such as teachers and counselors (if you have kids). We have all become comfortable with online meetings and how many of us have been talking for a while before we realize that we still had the mute button on! During this time, the Hall of Fame committee has been conducting meetings online and planning our event for December. We have selected this year's nominees and we are looking forward to another great banquet.

We at the Mining Foundation of the Southwest would like to extend our sincere condolences to the Lowell Family. David Lowell passed away at age 92. David was a successful explorer for over 60 years and discovered or co-discovered 12 major ore bodies that have become major mines including the world's largest copper district, Escondida (Chile). David also made major contributions to the science, notably through his synthesis and applications of alteration zoning in porphyry copper systems. Our prayers and thoughts go out to the Lowell family.

If you have renewed your membership, thank you. For those of you who still need to renew, please do so online.

As we head into the summer months, we will see how this pandemic will impact Arizona. Our new "normal" includes a continuation of online meetings, wearing face masks and keeping our distance. We as a community will persevere and get through this difficult time. I wish you all good health and please stay safe.

HALL OF FAME MEETING

Date: Wednesday, June 10, 2020

Time: 3:30 p.m. — 4:30 p.m.

Place: Zoom Invite

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



LOWELL INSTITUTE FOR MINERAL RESOURCES



OUTREACH CORNER BY CHRIS EARNEST

Late May has come to southern Arizona, bringing with it the summer heat and the beginning of the end of the 2019-2020 school year. It has been a year full of young faces smiling in wonder, exciting opportunities to share the importance of mining, and major new challenges that few expected due to the onset of the Corona virus pandemic.

Prior to the shutdown of classroom and group presentations in March, the outreach program was experienced by 4900 students who spent 95 hours of class time discovering the importance of mining and mineral resources. We traveled to 22 schools from Vail to Buckeye, participated in 12 different science/STEAM fairs, and hosted 500 students at the Mineral Resource Discovery Lab in Flandrau Planetarium. Although the current school year was cut short, we look forward to reaching even more students across the state when classes begin this fall.



Students create an artificial wetland for reclamation in the Mineral Resource Discover Workshop (MFSW51.jpg)



Phoenix High School students learn how copper is extracted from ore (MFSW52.jpg)

Planning Continues

We are preparing for the next school year by finalizing the new outreach presentations and materials using feedback received from students and teachers who experienced our presentations this year. We look forward to starting this fall with a full roster of presentations for grades 4 through 12 that demonstrate that mining is modern, safe, sustainable, and necessary while fulfilling state science standards. In the coming months, students and teachers will be able to see the details of these presentations on the outreach website and easily request the presentation that excites them.

Outreach Corner Cont.



Outreach production studio in action (MFSW 53.jpg)

Even though in-person outreach opportunities currently are limited, we are working hard to provide resources for students and teachers to use both in the classroom and at home. The UArizona students who hosted the Mineral Resource Discovery Workshop have been working with two Tucson teachers to answer specific questions about mineral resources posed by the K-8 students. The K-8 students really enjoyed seeing UArizona students respond to their specific questions. With this positive reception we are hoping to formalize the question and answer format and open it to more schools and community members across the state. To reach Arizona students who are studying from home for the remainder of this school year, the outreach program has begun production on a YouTube video series called "Mineral Minutes". Targeted at 4th to 7th graders these videos will help students understand how mineral resources are the basic building blocks of their world. In each video students explore a familiar everyday object and discover how mineral resources and mining make that object possible. To view the videos completed so far, please follow this link

<https://www.youtube.com/playlist?list=PLvezXfWkBAA6sVR8JGoUJr8E9DUhE7ur7>

to the unlisted playlist where they can be viewed before the official public release starting on the 20th of May. Thus far, four videos have been filmed in the outreach studio and are ready for release with three more scripted and on the way.



UArizona student demonstrates the principals of seismic exploration in QA video (MFSW54.jpg)

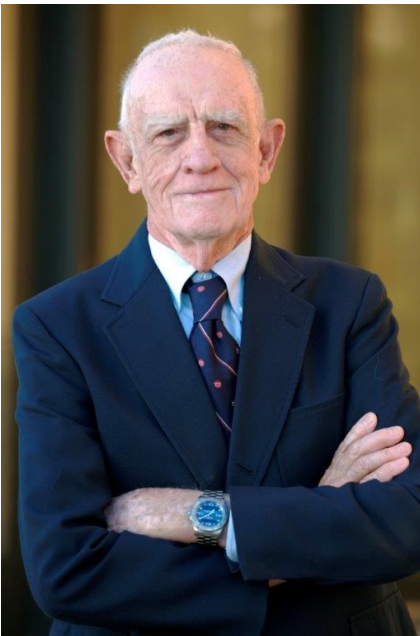
From Freeport's "Dig Into Mining" to the Smithsonian Museum of Natural History's "Exploring Minerals" webinar, quality distance-learning mineral resource content is available out there, but the difficulty is finding content appropriate for the age of the learner. To help parents, students, and teachers find mineral resource content that fits their needs we are combing the web and collecting the highest quality material into a resource hub on the outreach website. If you know of a good resource, don't hesitate to contact Chris (earnest@arizona.edu) so he can add it to the collection. While the summer may present additional challenges for the outreach program that will require innovative solutions, we are

looking forward to resuming classroom outreach in the next school year in support of Arizona students. In person, online, or through means yet to be developed, the outreach program will continue to help our community discover and better understand the importance of mining.



AMERICAN MINING HALL OF FAME

J. DAVID LOWELL—2002 INDUCTEE, 1994 MEDAL OF MERIT



In the 38 year history of the American Mining Hall of Fame, David Lowell is the only one who has been honored both as the Inductee and as the Medal of Merit Honoree. Dave was the most successful explorer of the last 60 years, having discovered, or co-discovered at least 12 major ore bodies that have become major mines including the world's largest copper district, Escondida (Chile).

He was born on a ranch in Southern Arizona in 1928. He graduated from the University of Arizona with a B.S. in Mining Engineering in 1949, from Stanford University with an M.S. Geology in 1957, and was awarded the University of Arizona's Professional Engineer of Geology in 1959.

Lowell was elected to the National Academy of Engineering in 1999. He has received the SME Daniel C. Jackling and Robert Dreyer Awards, the AIME Earl McConnell Award, the SEG Silver Medal and Penrose Gold Medal, the MMSA Gold Medal, the Australian Academy of Science Hadron Forrester King Silver Medal, and the Chilean Centro de Estudios de Cobre y la Minería CESCO Award.



Photo - 2017 Hall of Fame Banquet

2002 Inductee Greg Boyce

2017 Inductee Gary Goldberg

2014 Inductee Fred Banfield

2002 Inductee David Lowell



Dave and Edith Lowell



MEMBERS CORNER

We welcome 1 new members

Robert (Rob) Livermore, Principal, Mining Group Director, CEC

Rob has over 30 years of experience in the geological field and has conducted numerous subsurface soil exploration, environmental assessment, compliance audits and contaminant remediation projects for the mining, oil & gas and manufacturing sectors. He is a Certified Environmental Manager in Nevada and a GIT in Arizona. Rob is a long time member of the National Groundwater Association, the Association of Engineering Geologists, member and past Chairman of the SME Maricopa Division and member of the Nevada Mining Association. Rob's uncle, John S. Livermore, was a 1990 Medal of Merit Honoree.



New Member Recruitment



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



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