



John Haskell Davis, Jr. (1915 – 1996)

Engineer and Designer

2022 Inductee from Mining's Past

John Haskell Davis, Jr. spent his entire professional career in the world of copper mine-concentrator-smelter operations. To this world, he contributed four innovations and much infrastructure. Born in Bisbee, Arizona, Davis grew up in Tombstone and Douglas. He earned a Degree in Mechanical Engineering from Cornell University in 1938.

His first job with Phelps Dodge Corp. was assisting the powerhouse foreman in PD's Clarkdale, Arizona smelter. Following combat in Europe during WWII as an Army officer, Davis joined PD's Western Engineering Department and worked on the Ajo smelter and Bisbee's concentrator. In 1957, he began leading Western Engineering as its chief mechanical engineer. He either personally designed or approved staff-drawn plans for PD projects around the world the next 21 years.

Davis invented processes creating reformed gas, using it to reduce oxygen-containing copper ores, and producing sponge iron from copper-iron ores. Among his designs were various expansions, especially at Morenci (1969-70), including improvements to the water supply, power plant, aerial tramway, crusher, reverberator and concentrator.

In the 1970s, Davis designed electrostatic precipitators and other PD plant modifications to meet changing pollution control laws. He designed and oversaw construction of PD's reactivated plant and residential town at Tyrone, New Mexico and subsequent expansion. He selected the site and

decided upon flash furnace technology used for the Hidalgo, New Mexico smelter. It opened in 1976 as the first U.S. copper smelter designed from inception to meet state and national air quality emission standards.

Davis retired in 1978 and remained in Douglas. He had served as Douglas Water Commission head from 1954-1965, and continued volunteer work in civic, social and church organizations until his death.