



**THE GOLD MEDAL – Acceptance Speech  
Jonathan G. Price**

**Mining and Metallurgical Society of America  
Annual Dinner  
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What a tremendous honor this is – to be recognized by colleagues from the industry and to be given one of the most prestigious awards in mining. I sincerely thank Alan Coyner and many other colleagues for nominating me for this great honor, and I thank MMSA for picking me. I am especially delighted in part because of the connection with Herbert Hoover, one of the first members of MMSA and, along with his wife, Lou, the first recipient of the Gold Medal. I have had some roundabout connections and parallels with Herbert Hoover throughout my career.

The first connection I make to Herbert is his wife. Like Beth, my wife, Lou was active in the WAAIME organization and a professional in her own right. Beth has supported my career throughout our 41 years of marriage and, fortunately for our two children, Alexander and Argenta, helped guide them to successful careers. She keeps me honest when I delve into her field of chemistry, and we enjoy volunteering together in various mining-education, geology-for-the-public, and track-and-field officiating endeavors.

Herbert Hoover was a member of the Cosmos Club, the site of MMSA's one-day symposium in 2010 on *Minerals for a Green Society*, which brought industry and academic experts together with policy makers in Washington, D.C. to discuss the importance of mining and mineral resources in the development of alternative or green energy resources. The Cosmos Club isn't as exclusive as you might assume. Its founder was John Wesley Powell, a geologist, explorer, and second director of the U.S. Geological Survey. When I was admitted into the club in recognition of my contributions in geology, one of the members wrote a brief letter of support, in which he stated "His kids are really smart, and his wife is a good bridge player. You should let him in."

There is a great portrait of Herbert Hoover in the halls of the Cosmos Club. The label simply reads “Herbert Hoover, Mining Engineer.”

Herbert and Lou Hoover were born in rural areas in Iowa, and Beth and I come from farming areas in Pennsylvania. How growing up in Iowa stimulated interest in geology and mining is a bit hard to fathom, although there were some classic lead mines there. For me, the farm in the Appalachians was great, because my parents encouraged me at an early age to collect and identify minerals and fossils. Fortunately, both the Hoovers moved west early in their lives; they met at Stanford and earned degrees in geology.

It took Beth and me a while to make it to California. We both started our academic careers in Pennsylvania (Beth at Bucknell and I at Lehigh University) and spent our honeymoon year at the University of Heidelberg, where my interest in economic geology was stimulated. My parents and mother’s parents ran a furniture store, so the business or economic part came easily. At the Mineralogisch-Petrographisches Institut in Heidelberg, exposure to Professors Paul Ramdohr, Chris Amstutz, and, while on sabbatical from Harvard, Ulrich Petersen, and other professors gave me broad backgrounds in ore deposits and related aspects of mineralogy, geochemistry, and structural geology. Then it was on to Berkeley, where I joined Professor Chuck Meyer’s cadre of economic geologists, who learned the Anaconda approach to mine mapping. While at Berkeley we did make a few forays across the San Francisco Bay, where Marco Einaudi, another ex-Anaconda geologist, had recently joined the Stanford faculty.

A few years ago, after Marco retired from Stanford, and the geology program decided not to replace him with a professor of economic geology, the chair of the department, Gail Mahood, a fellow Berkeley graduate student, contacted me – asking if we (the Nevada Bureau of Mines and Geology and the Mackay School of Earth Sciences and Engineering) might be interested in the collection of over 20,000 samples from ore deposits throughout the world that had been collected over the last 120 years or so by Stanford faculty and students. Fortunately, Jim Taranik, our Dean at Mackay at the time, recognized the value of the collection, and we had just begun to build a new building for the geological sample and public outreach parts of the Nevada Bureau, which meant that there would be room to house the collection and make it part of the Mackay mineral and mining museum.

A year or so later I was examining the collection while preparing to help teach a graduate course in ore microscopy at Mackay, and we discovered many samples in the collection that had been donated by Herbert Hoover, Lou Hoover, and Herbert’s older brother, T.J., another famous mining engineer and the first Dean of Engineering at Stanford. As the following quote from T.J. demonstrates, the Hoovers certainly knew the value of mining: “Engineering is the professional and systematic application of science to the efficient utilization of natural resources to produce wealth.”

After leaving Stanford, Herbert Hoover went off to Australia to start his career in mining. In my case, I went to Nevada, first with the Anaconda Company while working on my dissertation at Berkeley on the Yerington porphyry copper deposit. U.S. Steel hired me after I graduated, initially to work on the Lyon or Pumpkin Hollow copper-iron skarn deposit in the Yerington district. U.S. Steel then sent me to South Texas, where we explored for and mined uranium.

Herbert Hoover entered public service in 1914, the same year he received the MMSA Gold Medal, at the beginning of World War I, first in relief efforts, then as Secretary of Commerce, and eventually as President of the United States of America. Unfortunately he was a one-term President because of the Great Depression. In my case, after three years with U.S. Steel in South Texas, I went into public service first with the Bureau of Economic Geology, the state geological survey of Texas. The experience there, which included some interesting silver, beryllium, rare-earth, and industrial mineral deposits, was the perfect background for coming back to Nevada. Being the Nevada State Geologist for 24 years was a wonderful job, I might even say perhaps more fulfilling than Hoover's presidency.

A quote of Herbert Hoover, though, fits my philosophy of government service: "The sole function of Government is to bring about a condition of affairs favorable to the beneficial development of private enterprise." I'm glad that the Nevada Bureau of Mines and Geology served industry well by producing many new geological maps, reports on industry activity, and geological hazard maps.

I'll end the parallels with Hoover, who became an independent mining consultant midway through his career by stating that I did so just last July, when I retired and was given the title of State Geologist Emeritus.

For several years I have been using data from the U.S. Geological Survey, Department of Energy, and other agencies to track global production of mineral and coal resources. The conclusion to which I have come is that the future of mining is bright – in large part because both world population and average standards of living continue to rise. 2011, the latest year for complete international data, was the peak year for coal production, and 2012 was the peak year for mine production of copper, iron, gold, and many other mineral commodities. Mining is a great and noble profession, and I'm extremely proud to be part of the industry and to be the recipient of the MMSA Gold Medal. Thank you very much.