

## Michael D. Campbell - Anecdotes of a Lifetime: Memoirs of a Professional Geologist

Submitted to: Caroline Wachtman, Editor, Houston Geological Society Bulletin



“Grandpas have stories,” says Michael Campbell, who recently published his memoirs in a book called [\*Anecdotes of a lifetime, Memoirs of a Professional Geologist\*](#). Campbell recalls stories covering nearly eight decades, beginning with his childhood in Ohio and continuing through his nearly 60-year career. “The principal objective was to create a record for my children, my grandchildren, and those family in the future about their geologist Grandpa,” he says. He and his wife, Mary (a Professional Genealogist), have been married for almost 50 years and raised 5 children (two sons and three daughters, all of whom have one or more college degrees in geology, medicine, psychology, archaeology, or education).

In addition, Campbell hopes that readers will learn “how persistence and dedication can be the key to a successful professional and personal life.” His account speaks to a new generation of geologists as he offers insights into building a resilient and rewarding career. Careful reading of his 456 pages of anecdotes (in [e-Book version](#)) yields the following advice: making mistakes can lead to better decision-making; build maturity and confidence through work experience; and, a resilient and flexible career is based on having diverse geoscience skills.

### Learning through mistakes



Campbell describes himself as not always being risk adverse in his childhood, but he added the trait after a few mistakes that later served him well during his mining and environmental projects overseas and in the U.S. in the 1960s to the 1980s and as the Regional Technical Manager and Chief Hydrogeologist in charge of five departments evaluating and remediating soil and groundwater contamination cases at Dupont from 1990-1994. Conservatively managing risk has also supported his career as an independent consultant on environmental and mining issues. By 2023, Campbell had served as an expert witness, assisting both plaintiffs and defendants, on more than 40 cases.

The path to these roles was marked by learning experiences. He recalls that during his high school years he enjoyed building and testing small rocket engines. He built a makeshift lab in his parents’ basement to investigate solid-fueled rocket propulsion systems and set up a test stand in the backyard. Although he thought he had waited the requisite time to confirm the test firing, on the final occasion in 1957, he stood up behind the low blast barrier too quickly and saw and heard a tremendous explosion. Instantly, he received shrapnel from the mis-firing static test engine, while knocking him off his feet about 5 yards backward, shattering his upper left arm bone less than an inch away from his ribs. Patience and following protocol became the unintentional lesson of that day. As he spent the next month recovering in the hospital, Campbell says he recognized his limits and realized that being a rocket engineer was not in his future. But he recovered with the help of his coaches and the next year played varsity baseball as the first-string shortstop with the team winning the Central Ohio Championship. The incident resulted in him being deferred from military service (during the Vietnam War).

In another anecdote, Campbell recalls taking on a part-time job during his first year at Ohio State. He got a job waiting tables and cooking at a local “greasy spoon.” He occasionally noticed a large, black Lincoln sedan would pull up to the back door and a bag would be exchanged with the restaurant’s owner. Soon, he was asked by the restaurant’s manager to transport briefcases to the small bank a few miles north. He said alarm bells were raised when the briefcase--to which he was handcuffed--came undone and he saw

bundles of crisp hundred-dollar bills. This was obviously more money than the restaurant could reasonably make serving pancakes and burgers to students. Campbell soon realized that he had unwittingly been lured into a money-laundering operation, and he found an excuse to quietly leave the job. While it may not have been apparent at the time, he was learning to be cautious in business interactions and trust his instincts when something seemed too good to be true.

### **Building confidence and maturity through work experience.**

In 1960, Campbell started college at San Bernadino Valley College in California, near where his grandfather lived. He says that he discovered geology during field trips in the San Bernardino Mountains. After a year with good grades, he transferred to the Ohio State University to continue his geology interests, but struggled to maintain his grade-point average in the first year at OSU as a sophomore. Friends, girlfriends and fraternity activities, combined with working mornings, noon's, and evening mealtimes at the "greasy spoon" competed for his time. He remained fascinated by geology and the many sub-fields, but he discovered that he needed to make money first in order to cover his college expenses if he was to make it through Ohio State.

After his first year at OSU, he set about to work in his hometown. His first job was at Anchor Hocking, Inc., the world's leading glass manufacturers at the time, located in Lancaster, Ohio. His job involved using a jackhammer to break apart hot, melted glass coatings on the inside of the cooling blast furnace during summers and then taking quarters off from time-to-time by working for Diamond Power before going back to Ohio State. He would later take another year off to work for Diamond Electronics. Campbell says that these work experiences gave him self-confidence and helped him develop professional business and academic skills, including being reminded by his boss that work started at 9 a.m. instead of 10 a.m., he recounts, although he usually worked past 7:00 PM in the evenings.

When Campbell returned to Ohio State, he took even more geology and then took hydrogeology courses from Dr. Jay H. Lehr and found German to be oddly easy for him as his grades began to improve significantly. He explains that Dr. Lehr was different from many of the older professors because he genuinely enjoyed teaching and engaging students. Lehr soon hired him as his undergraduate research assistant to help him build groundwater models and Dr. Lehr became a mentor to Campbell over the coming decades. "The more encouragement I received, it seemed, the better my grades," he says. The work experience buoyed him throughout the rest of his time at Ohio State and to graduation in 1966, ending with a respectable grade average and with a sense of accomplishment and ability to take on the future in his profession.

### **A resilient and flexible career**

"Before the student graduates, he/she should diversify the curriculum undertaken," says Campbell, who focused his studies on hydrogeology and mining-related courses, but also studied geophysics among other disciplines. He explains that geoscience is an integrated discipline, so it is important to have an integrated course of study.

He says that, as time passed, his strong foundation in both mining-related and hydrogeology courses allowed him to be more resilient to future job market trends. For example, his first job after college graduation was as a mining geologist for Conoco in Sydney, Australia. Six years later, the uranium mining industry declined in the U.S., so he pivoted back to hydrogeology and was appointed as the Director of the National Water Well Association (NWWA) Research Facility led by Dr. Jay Lehr and they produced a major text: [Water Well Technology](#) (McGraw Hill), and others during that period.



Then, after receiving a Mills Bennet Fellowship, while continuing as Director of Research (NWWA) in the Department of Geology, he earned a master's degree in Geology and Geophysics from Rice University; Campbell then pivoted back to focus on mining issues as the Manager of the Alternate Energy Group (uranium, coal, and geothermal energy, etc.) for Keplinger and Associates, Inc. in 1976 and later founding a mining consulting firm in 1982 as the price of oil declined. In 1986, after managing a gold and silver mining project in Nevada, he received an offer in Houston to pivot back to hydrogeology as a senior consultant in engineering companies and then as the Regional Technical Manager and Chief Hydrogeologist for Dupont's Central U.S. Region. After that, he went into private practice with his son, David, also a professional geologist in Texas, and was often called upon to serve as an expert witness. "Litigation is an integral part of business and of the science of hydrogeology and in mining projects," he explained.



**Preparing Rock Thin-Sections**

For current students considering a career in geology, he advises to study a diverse curriculum. "They should take all the geology courses they can to explore what part of geology they find most interesting," he says. He predicts that many of the next generation of geologists will be mining the moon and asteroids for rare elements and critical minerals, so having planetary geology experience will be valuable, but the environmental field for industrial clean-ups and in the oil and gas field will

tical mineral exploration and mining will remain important fields of employment on Earth. He also stressed that it was very important to be active in their local geological societies in Texas. Making and maintaining friendships with other geologists and contacts has been an integral part of Campbell's success. For example, he has been active in the Houston Geological Society (and AAPG' EMD, SEG, GSA, etc.) since the early 1970s while making many presentations to the Engineering & Environmental Group over the years. He also produced a book published by the HGS in 1977: "Geology of Alternate Energy Resources," covering uranium, lignite and geothermal energy. He was the editor and author contributing five chapters.\*

Also, the oil and gas industry, critical mineral exploration and mining will remain strong sources of employment. Campbell encourages early career professionals to be active in their local geological societies, including the HGS. He says that making and maintaining friendships with other geologists has been integral to his success. In addition, he has made many dinner meeting presentations of the HGS Engineering & Environmental Committee since the mid-1970s through the 2016.\*\*

### Going forward while looking back

As Campbell reflects on his career, he says he is pleased with his work history and accomplishments. He was appointed Chairman of the Uranium and REE Committee of the [Energy Minerals Division of AAPG](#) from 2004 to 2021 and was elected President of the Energy Minerals Division of AAPG in 2010. Campbell has also received numerous awards and honors, including being elected as a Fellow of the Geological Society of America, the Australian Institute of Geoscientists, and of the London Geological Society, the oldest geological society in the world. He was also elected [Vice President](#) of the Eastern Texas Section of the American Institute of Professional Geologists (AIPG) and was awarded a [leadership citation](#) from the organization in 2015.



**After Weeks in the Field**

In 2004, Campbell was inducted to the [Lancaster High School Distinguished Hall of Fame](#) for "outstanding contributions to the fields of geology and hydrogeology." He is currently serving as Principal and Chief Geologist and Hydrogeologist for [I2M Consulting, LLC](#) in Katy, Texas.

For more on his Memoirs, see: ([here](#)). Or, to purchase the hardback, paperback or the Kindle E-book (preferably) on Amazon: "Anecdotes of a Lifetime: Memoirs of a Professional Geologist," Amazon.com: ([here](#)).

\* Note: In 1977, Campbell also led the publication of "Geology of Alternate Energy Resources," by the *Houston Geological Society* serving as editor and contributing five chapters ([here](#)).

\*\* Note: Campbell's HGS presentations (1970s to 2016) ([here](#)).

For more on his background, see his CV ([here](#)).

For more on Campbell's background, see ([here](#))

xxx