A Son's Tribute on Father's Day

Vaughan C. Turekian, '93

Appeared in ***Science & Diplomacy*** *A quarterly publication from the AAAS Center for Science Diplomacy*

Karl Turekian with his granddaughter.

This June 16, 2013 will mark the first time in my life that I do not have someone to call to wish a happy Father's Day. After a short struggle with cancer, my father, Karl Turekian, passed away in March, leaving an indelible mark on the world, whose processes, composition, and origin he studied during his nearly six-decade career. Reflecting on his life and his influence, I realize that my own path to becoming a science diplomat was laid and paved by this remarkable man.

For me, a pursuit of a career in science diplomacy started with an early infatuation with air travel—the travel mode of choice for researchers and diplomats. My father was my major influence. Some of my earliest memories involve my mother, sister, and me taking my father to the airport for one of his journeys, watching in wonder as he boarded a plane that would quickly take him to a distant place. The destinations were varied, but each would lead to interesting stories and ultimately be the source of a good souvenir for my sister and me. I was so taken by airplanes that I asked my dad to take me to the airport for my third birthday so we could watch them take off and land—which we did for hours with great excitement. Of course, as a professor, he could not resist explaining the concept of lift and Bernoulli's principle.

Many of my father's trips were to far-off places—but perhaps none were as exotic, given the geopolitics, as his two trips to the Soviet Union. In 1966 and again in 1971 (the year I was born) my father was part of scientific expeditions to the USSR—first to attend the International Oceanographic Congress and then to plan the Geochemical Ocean Sections Study. In later years—including just weeks before his death—we would discuss what it was like to be one of the few Americans with the opportunity to visit the USSR

during the height of the Cold War. It was a fascinating exposure to the fact that science provided a way to make connections between people even in the midst of high stakes political posturing. Eventually, I was able to compare notes with him based on my own forays through science into places like Cuba and North Korea, where science provides one of the few vehicles for interaction. Some of the experiences were similar—his recollection of the Moscow subway lined up with my encounters with the one in Pyongyang. Some of the experiences were quite different—especially given the rapid communication brought about through the internet age. But there is no doubt that both of us came away from visits to such extraordinary places wondering what problems science might solve.

These early lessons concerning the potential role of science as a way to build bridges provided an important grounding, and in recent years I have realized that there were three other principles that I learned from my father that have helped in my path.

Substance and a shared commitment to solving a problem is the bedrock of a friendship: I often joined my father on his summer travels. One trip to Caltech involved a meeting with Clair (Pat) Patterson, the scientist who determined the earth's age of 4.55 billion years. Inside Pat's office these two titans of geochemistry got into a heated discussion, raising their voices. After departing, I was shaken by this tense exchange and I asked my father why he visited this man whom he did not like. My father replied, "Pat, he is one of my closest and most admired friends. We were discussing different ideas about how lead isotopes should be used to understand an important problem." Looking back on that experience, I appreciate that they were two friends with strong mutual professional admiration. Rather than jeopardizing their friendship, that argument (and many others like it) allowed them to fully understand all sides of the problem and begin working together to find a way to solve it.

Life is not linear: On a regular basis my father would remind me that life could not be planned out and that opportunities come to those who are prepared to take advantage of chance and circumstance. He would often recite a quote from Ecclesiastes: "the race is not to the swift, nor the battle to the strong, neither yet bread to the wise, nor yet riches to men of understanding, nor yet favor to men of skill; but time and chance happens to them all." So it is that my approach to science diplomacy has been a nonlinear path. It started in graduate school, where I earned a doctorate in science, before pursuing different opportunities, first at the U.S. National Academy of Sciences and then through a fellowship at the U.S. Department of State, before arriving at the American Association for the Advancement of Science (publisher of *Science & Diplomacy*) and a receptive audience willing to try this new endeavor of science diplomacy. It is not a conventional course, and if you subtract the elements of time and chance, my path might have been much different.

Transformational change requires challenging the orthodoxy: In remarking about the nature of his career, my father stated, "My job is to knock down some idea and leave something behind for the next guy to knock down." At the core of his belief was that all ideas need to be challenged and all experts should be questioned. A person gets no closer to discovering truth when upholding conventional wisdom simply to protect the doctrine of the day. Mixing science and diplomacy is not an obvious marriage. There are many in both communities who are leery of the other or don't see the potential in bringing together such disparate actors. But knocking down some of these preconceived notions and developing new ideas and communities provides possibly the best hope in improving the lot of people and their planet. And over time these new ideas will also need to be knocked down by the next person.

I can't help but wonder what lessons or principles my own children might learn from me that will help guide them through their lives and careers. I can only hope that they absorb the most important thing that I learned from my father—we live in a remarkable world. It can be traveled and studied, and it holds great mysteries and beauties. By having substantive arguments with their friends, living on the nonlinear path, and challenging the orthodoxy, they can develop a greater understanding of the world and build closer connections to those who inhabit it. This is my hope for the role of science diplomacy. This is my Father's Day wish.