



Photo courtesy of Pierre Schwob

Launched into science

Sputnik, the first satellite sent into Earth orbit, was launched October 4, 1957—my 11th birthday, so I remember the date. It was also the first time I found my father seemingly interested in science and technology.

I understood later that my dad's reaction had more to do with the fact that it was the communists who had launched the thing. Nonetheless, I was most impressed by the idea that one could tune a radio receiver to hear transmissions from a man-made object in space. I began to read what I could about radio, rockets, space, and the stars.

This opened a wonderful perspective for me: We humans are rather puny creatures, but we can think! Pascal's words "Man is but a reed... but he is a thinking reed" resonated strongly, as did "The universe is an infinite sphere whose center is everywhere and circumference nowhere."

My natural inclination is to understand things within their context. And I cannot imagine a better context-providing starting point than the study of cosmology and astronomy. The more I read, taking particular pleasure in the history of science and in the learning of the scientific method, the more I became fascinated by the astonishing advances made toward our understanding of the universe and our place in it. (Perhaps to Pascal's chagrin, this drove me to evolve into a comfortable agnosticism.)

I sometimes regret that I did not become a physicist, but various factors led me in other directions and I ended up making a career as a computer scientist and entrepreneur. (My first mark was made in the field of radio data reception. Should I thank the Soviets for this?) While making a living and eventually raising a family, I continued to read what I could about science and, in particular, follow developments in cosmology, astrophysics, and particle physics.

I must express here my heartfelt gratitude to the authors of popular science books and magazines. Their efforts provide incalculable enlightenment to the rest of us and, as importantly,

they communicate the great beauty and drama of the scientific enterprise.

But reading about science was not quite enough. I needed to get up close and personal with the scientists and their heroic experiments. I began to visit many of the major observatories and laboratories around the world so I could meet with the people who do the actual work and learn directly from them. This led me to the Stanford Linear Accelerator Center in California; the CERN particle physics lab near Geneva, Switzerland; several mountain tops in Arizona; Mauna Kea in Hawaii; the Atacama Desert in Chile; the South Pole; and many other fascinating places. Eventually, I was able to offer some support to the Kavli Institute for Particle Astrophysics and Cosmology at Stanford/SLAC and I began to attend as many colloquia and conferences there as my schedule allowed. I was to learn enough to understand, on a wildly charitable average, about half of what was being discussed.

When asked if I understand a particular scientific topic, I sometimes reply that I am like a blind man in front of the sun: I cannot see it, but I can certainly feel its heat. This allusion to different wavelengths brings me to observe that I feel particularly fortunate to live in a most remarkable scientific era when cosmology is becoming an exact science, where data is being collected and experiments can validate or disprove theories. It isn't theology anymore!

I close by noting that I have found all the scientists I've met, from the most modest grad student to the most exalted Nobel Laureate, not only approachable but also wonderfully eager to share their passion, and delighted to see an outsider showing an interest in their work. They are all so very generous with their time and I thank them infinitely for this. My only wish is that more of us, the voters who fund a great deal of this (sometimes fairly expensive) enterprise, come to learn of the inestimable value these people are providing our society and our civilization.

Although I know the Earth will not support life forever, I suggest that it is better to die in the evening so that one can learn something that last morning.

Pierre R. Schwob

Pierre was raised in Geneva, Switzerland, and has lived in New York, Hong Kong, and now Palo Alto. He has taught computer science and licensed his intellectual properties in radio data and Internet technologies. He's also written books on chess, calculators, and history. He now runs ClassicalArchives.com and spends quite a bit of time at the Kavli Institute for Particle Astrophysics and Cosmology, whose computer center he has endowed.