Making Toys, Building Careers

By Sam Seabright

Looking back, I see now that dad was very smart. Most of the fun we had with toys was in making them. Using them was then doubly satisfying, and laid the basis for later life experiences.

Now I know that dad had more fun than I did. He carved small toys from wood, and cut simple shapes so I could arrange them into houses, cars, whatever my imagination thought them to be. There was no telling what would be in the Christmas stocking! They were mostly simple but imagination-building, and so many demonstrated some principle that would be useful later in life.

A simple paddle boat, played with in the bathtub, became a principle for a later flying model plane (built from scratch, of course, and powered by a rubber band). The later engineering classes on fluid dynamics even made sense to me. Continuing this theme, these simple paddle toys brought to life the great propellers (for ocean liners) and pump impellers (for the California water supply) I was to work with as a professional engineer.

Even before I went to kindergarten, dad made me a kitchen blackboard. It was plywood, painted flat black, and hung on the wall so mom and dad could see me writing numbers, the alphabet, and getting practice “making presentations”. Little did I know how these skills would develop through life! The schoolwork was fun for me, and life’s work was interesting and satisfying.

Once I made an abacus. In fact, I made two: one decimal and one hexadecimal, and became competent with both. Through the eras of slide rules (I still have a small collection), punch tape and cards, a really expensive ($400!) calculator, and MS-DOS, now we have arrived at Vista. In the time my new computer is booting, I could have all my calculations done and eat lunch if I could use the abacus.

My bedroom at our home at Boggs Run was large, but I soon filled it with a museum of sorts. On one card table I grew crystals from salt, ground-up stypic, and other substances. I made skeletons from caught fish and dead animals. There were many local fossils, the basis for other adventures. One table served as a workbench.

Once I built a simple electric motor. Of course I also blew a few fuses (another learning experience!). But nothing beats a hands-on experience to really begin to understand science. In the same vein, I built an ionization tube—you would recognize it as a fluorescent light bulb—to show the amazing effects possible with electricity. Later on, I taught courses in machine controls, and designed complex ladder-logic circuits for large printing presses.

Dad refused to buy me a telescope. Instead, he agreed to help me build one. This was no simple undertaking (we even ground and polished the parabolic mirror), but this is fodder for a future story.

We had a Kodak Brownie camera, and trekked to a store to have the films developed. You guessed it… I set up a darkroom and lab in the cellar. Then I expanded this idea to build cameras, including a special camera for the telescope, a large camera obscura, and adapted the Brownie to a microscope. The possibilities seemed endless! In fact they were… this interest eventually developed into a professional photography business with my wife, Brenda. We had a portrait studio, and did product, industrial, architectural, and aerial photography--and of course a darkroom and processing lab!

Many other projects were ideas from how-to articles in Scientific American magazine. Today the internet offers a wealth of ideas. The best ideas are the simple ones that excite the imagination and lead to further explorations, perhaps even a career.