
Bertram C. Bruce: Connecting learning and life

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Frisky and Blossom are long gone now, and I wouldn't recognize them if they showed up today. But they taught me more about life than many people I've known. They were de-scented skunks who lived at the Fort Worth Children's Museum (now the [Fort Worth Museum of Science and History](#)). I met them when my mother enrolled me, as a three-year-old, in the Frisky and Blossom Club held at the Museum.

The Frisky and Blossom Club was the first class of what later became the [Museum School](#), now one of the largest museum school programs in the world, having served over 200,000 children. It was one of the first museum preschools to be accredited by the [National Association for the Education of Young Children](#). But in 1950, the Club had only five members, Ben Hulseley, his younger brother Price, Gary Rall, Doug Wiley, and me.

Mr. and Mrs. Bigelow ran the Frisky and Blossom Club out of an old house on Summit St. We started in the summer of 1950, and came several times a week. There were outdoor benches where we sat for activities. We played with Frisky and Blossom, learned about rocks and fossils, and other artifacts the Museum offered. We also talked about things we liked to do and the Bigelows helped us connect those interests to each other's and to the larger worlds of science and nature.

Later, I took other classes from the Museum School. These included Insects, Rocks & Fossils, and Astronomy. I joined the Astronomy Club, run by Mary Charlie Nobel, the namesake of the Nobel Planetarium. I still have my notebook from the Astronomy Club. It has issues of [Sky and Telescope](#) from 1956, diagrams of constellations, and notes from our classes. It also describes our wonderful field trips, in which we sat on a hillside watching for meteors, or studying the Milky Way (a stupendous sight available to anyone on earth to see in the days before we polluted the skies). I also participated in a program to spot enemy aircraft, presumably Russian bombers that had somehow missed being seen on their way to Fort Worth. I don't know whether I helped save the Nation, but I remember being excited about a chance to contribute, and learning how to identify planes by their sound and silhouette. I still have a book *Astronomy*, which I won for spotting the most planes.

Although my writing in that notebook seems primitive compared to that of the nine- and ten-year-olds I see today, it recalls for me the joy I felt in expanding my imagination. I listed distances of planets, not because I was to be tested on it, or because it was good preparation for middle school, but because the Museum classes had awakened my senses. They concocted a living organism out of the natural curiosity of a child, knowledgeable and caring adults, interesting books, charts, and images, and the clear Texas skies.

What emerged from the Astronomy Club can be said about the other activities as well. I'll never forget searching for insects in the [Fort Worth Botanical Gardens](#) or making boxes for mounting them. I can still identify insects by their order and was interested to read about the recent discovery of a new order, Mantophasmatodea. In fact, a characteristic of all the experiences I had at the Museum School is that they didn't stop when the class or club ended. Instead of covering a topic and moving on, the Museum School caused me to open up, to seek to extend and enhance those experiences.

Another characteristic of these experiences was that they were never just, say "rocks & fossils" or "insects." Through the insects class, I learned about cigar boxes (to hold the mounted insects), carbon tetrachloride (now banned as unsafe!), painting and homasote, the Greek language, flowers in the Botanical Gardens, diseases, history, and much more. Through "rocks & fossils" I learned about plaster of paris, two-D and three-D representations, dinosaurs, evolution, geology, oil exploration, and the age of the Earth. In contrast to some of the formal instruction I had received, this was a living process, a statistically unpredictable one, in which each experience led to learning and in turn to new experiences.

It's impossible to identify all the ways the Museum School affected me. The fact that I married Susan, who was working then at the Boston Children's Museum, seems too obvious to say. Perhaps it's all the little things, reading a biography of Roy Chapman Andrews as a teenager and fantasizing about exploring the world, loving to canoe and to hike in the mountains to this day, choosing to major in biology in college, being a regular reader of *Scientific American*, *Natural History*, *Smithsonian*, and *National Geographic*, participating in Science for the People, wanting to share a love of science with my children.

The most pervasive effect for me is how it has shaped the way I think about learning and life. In school we sometimes experience learning as a negation of life ("sit down and finish your workbooks!" "that doesn't belong in the classroom!" "what were you doing instead of your homework?"). The testing mania of today only exacerbates that tendency.

When learning is separated from life, it becomes sterile: How many hours did all of us spend doing calculations in math classes and how many of us feel confident in math, care about it, spend time thinking about it? If the sterile approach helped develop people with a lifelong passion for learning, critical social engagement, and

caring for others, I'd reconsider my views about it, but from where I stand those qualities emerge in spite of the sterility of much of formal instruction. Much of my work today is aimed at making learning come alive by connecting it to what matters in each learner's ordinary experience.

The Museum School taught me a lot about the world. To this day, I can tell you the difference between diplodocus, diptera, and dipper (and I'm probably less afraid of skunks than I should be!). But more importantly, it taught me that the process of learning and growing is both challenging and energizing. The energizing aspect comes because the learning is connected to things the child cares about. That caring in turn is what makes it possible to for the child invest deeply in what would otherwise be daunting tasks. In the end, the learning becomes deeply embedded.

I mentioned above the joy I felt in expanding my imagination. I think many of us identify museum learning with joy, or simply with fun or play. In so doing, we risk conceiving it as un-serious, as inconsequential, as peripheral to real learning that can be organized into the scope and sequence of a curriculum or assessed on a standardized test. But my experiences with Frisky and Blossom, and yes, the people, too, taught me that joy means being connected to what matters, to being deeply engaged in life, and that joy in one's experiences is the only real source for lifelong learning.

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