

Dr. Carl E. Patton has always been a self-described “crazy nerd,” in the best sort of way. From a young age, he was taking things apart and putting them back together in innovative ways, just as he has been doing with the magnetics laboratory at CSU for 43 years.

Born in San Antonio, TX, on September 14, 1941, just a few months before Pearl Harbor, Patton grew up curious about the way everything worked. Around 9 years old, he told his Mom, “I’m going to build a radio!” He took apart a radio and then nailed all of the radio parts to a wooden board. It didn’t work, for obvious reasons, but his mother was delighted. His parent’s delight and encouragement spurred on the young scientist.

In sixth grade, Patton had had an idea for a perpetual motion machine and, with his dad’s support, sent off the plans to General Electric Company. No matter that perpetual motion is perpetually impossible. Both mother and father were impressed. Suddenly words like grad school and Cal Tech were bandied about. His Dad bought him a subscription to a nuclear engineering trade journal. Patton remembers fondly, “I was in no way ready for that, but I liked the math and physics.”

Patton went to Massachusetts Institute of Technology (MIT) right out of high school, where he majored in physics. He candidly acknowledged that his upbringing didn’t serve him well in some areas of life. “I talked and thought pretty much like George W. Bush talked and thought. I was the worst.” But the beautiful thing about humans, especially smart and caring ones like Carl Patton, are that we can examine, think about and change our opinions.

There wasn’t much time for extracurricular activities in Patton’s busy college life. He did research at the newly formed National Magnet Laboratory at MIT and worked at Shell Research in Houston during the summers. In 1963, with Bachelor’s Degree in hand, he worked at NASA’s Jet Propulsion Laboratory (JPL) in Pasadena, California, assisting with research on magnetic thin films. His JPL mentor guided Patton to the Ph.D. program at Cal Tech in electrical engineering, instead of physics.

“Fate got me over to electrical engineering,” Patton said with a wise smile, “because in physics I would have died. Too many really smart people!” After Sputnik, Cal Tech was booming, and Patton took full advantage. He networked, presented papers at conferences, and when he was close to the completion of his doctorate, applied for jobs. “I felt like a big shot, flying transcontinental every other week to interview at places like IBM.” When the time came to leave Cal Tech, he chose to go back to Boston for a job with Raytheon in July of 1967. It wasn’t the most glamorous place, but the people were the best. He took an unpaid leave of absence in 1969 for a year of research at the University of Tokyo and Tohoku University, skiing on weekends and enjoying the Japanese way of life.

After his time working with students in Japan, Patton decided to look for a teaching job. Colorado State wasn’t on his radar, until senior colleague became head of the Department of Physics and offered him a job. Patton remembers thinking, “What the heck, Colorado has lots of mountains!” After a memorable skiing trip in Steamboat Springs, Patton was almost sold. But since CSU wasn’t highly ranked, he was worried that he wouldn’t be able to build a successful program. He asked his CalTech mentor for advice and was told, “You can make it into whatever you want.”

Patton was hired as an Associate Professor in 1971, and even with his wild hair, long beard, bell bottom pants, and yellow tint Beatle glasses, his colleagues were welcoming. His laboratory, when he arrived, consisted of a bare bones basement room with nothing but a pile of junk on a big black table in the middle. It was "a wasteland for research," he said fondly. He spent his first few years writing grants and begging lab equipment from Cal Tech, Raytheon, MIT, and Bell Labs.

With a growing lab and grant money (finally) in place, Patton's magnetic research program was eventually able to put the CSU Physics Department on the map. He pushed his students not only to be thorough and careful scientists, but also to be strong mentors and effective science writers and presenters. He related that he was proud that his students and postdocs have carried-the message of good writing and presenting out into the world.

Apart from his involvement in teaching at all levels, Patton's main focus has been on building a strong international program in basic and applied magnetics. The creative work of many students and postdocs over the years have led to such a program, one which new colleagues are now taking to even greater heights. This would also not have been possible without the help of the unspoken heroes of CSU: the dedicated staff of the department, the library, and the Purchasing, Facilities, International, and Human Resources departments. He contends that the administrative bureaucracy has always been something to avoid.

Carl Patton came to CSU to teach and mentor students and postdocs in research. Due mainly to the strong support and help from many colleagues inside and outside the university and around the world, that is what he was able to do. It has been and continues to be a wonderful journey.