(As published in The Oak Ridger's Historically Speaking column the week of February 17, 2020)

As usual, Benita Albert brings us another intriguing story of an Oak Ridge school graduate. Jim Pollock's story will bring back memories. Enjoy a look back at Oak Ridge from Jim's perspective.

Jim Pollock left Oak Ridge forty-six years ago, but his fond memories of his secret city roots are strong. An Oak Ridge High School Class of 1973 graduate, Jim was the son of "the music man," Bill Pollock, and Deszmer (Crane) Pollock, a nurse, homemaker, and bookkeeper for her husband's popular Jackson Square store, The Music Box.

I was privileged to reconnect to Jim, my former Calculus student, and to convince him that his story and his family's Oak Ridge history would make a delightful narrative. This first part of Jim's story will focus on the time period from his dad's arrival in Tennessee through Jim's senior year at ORHS. Where I use Jim's word phrases precisely, I will use quotations.

Jim Pollock's grandfather moved from Philadelphia, PA in the early 1930s to "set up the financial operation, the books" for the Tennessee Valley Authority headquarters in Knoxville. Prior to this move, Jim's dad, Bill, had begun dabbling in electronics and had built a crystal radio. He loved listening via earphones to late night broadcasts. His favorite programs featured big band music sounds from such as the Waldorf Astoria ballroom and other similar venues.

Bill graduated from Knoxville High in 1933, and he enrolled in the electrical engineering program at the University of Tennessee. He started his own business of building amplifiers and renting them out to UT students. At the end of his junior year, Bill accepted a job with Eastern Airlines in Miami, FL. Ultimately drawn back to East Tennessee in 1943, Bill joined the Manhattan Project workforce in Oak Ridge. He became an instructor for the operation of "cube boxes," a job now famously known for the cube box operators, the Calutron girls. (This term, "cube boxes" is a new one on me. I know the term as "cubicle operators" – Ray)

In the evenings, Bill brought music and dancing to Oak Ridge. He wired recreation center dance halls and served as the disc jockey. He did simulcasts by stringing radio lines along telephone poles to more than one Saturday night dance event. Jim said that such dances continued far beyond the war years with his dad serving as the DJ for the '43 Club and other groups. Jim was thrilled to learn that the ORHS Class of 2018, the 75th ORHS class, sponsored a tennis court dance in honor of another of Bill Pollock's social innovations.

Jim smiled when recalling that his dad was still "DJing" at the age of 85 for one remaining Oak Ridge dance club. Jim set up his dad's hand-built speakers, record player, and amplifier to play his beloved big band music at his wake in 2003. At this wake, Dick Smyser, a former *Oak Ridger* editor, declared Bill Pollock to be one of the most influential people in the social life of Oak Ridge. Bill also provided sound amplification for numerous ORHS graduations, city swim meets, rowing regattas, and numerous other community events.

Deszmer Crane arrived in Oak Ridge in 1948, accepting a nursing position with the Experimental Medicine Research Center. She described her job as administering "atomic cocktails" while working in the cutting-edge studies on the risks of nuclear sitework.

Meeting on a blind date, Bill Pollock was a persistent suitor, even when Deszmer returned to her hometown of Kingsport for two years. The couple married in 1953, built a home on Maple Lane in the mid-fifties, and opened The Music Box with Horace Cerruti. The corner store, across the street from Blankenship Field, was a mecca for music lovers and electronic buffs.

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Jim Pollock was born at Oak Ridge Hospital in 1955, and sister Anna (whom young Jim renamed as Susie) arrived two years later. They both attended Cedar Hill Elementary School, Jefferson Junior High School, and Oak Ridge High School, graduating in 1973 and 1976.

Jim and Susie grew up in a busy, loving home where they were encouraged to explore, to innovate, and to contribute. Jim worked downstairs in the electronics section of The Music Box while Susie worked the upstairs music and records department. Both children were enlisted in the ongoing electronics projects of their dad. Jim laughed when stating that, some forty years later, his sister still reminds him of one of their dad's lessons on soldering, "Heat the joint, not the solder."

Being immersed in a science town, influenced by the curious and experimental mind of his father, and eager for academic challenges, Jim was destined to become a scientific entrepreneur. At age twelve he recalled paying \$200 of his savings for a telescope, observing the rings of Saturn, and declaring his future career to be astronomy. Though his career plans changed, Jim still has the telescope and later-purchased, camera enhancements.

Jim expressed gratitude for Erma Neff, his Jefferson Junior High School ninth-grade English teacher. He said, "She took a subject I didn't care about, required that I write daily, and made me get used to enjoying it. She was especially effective in teaching me to translate between different levels of complexity."

Later, as an engineering product manager, Jim said his work required that he "communicate user needs into product design, manage the engineering process, and translate results to customers." Such skills, involving all sorts of what Jim described as "communication literacies," are often considered the bane of an engineer's job.

Jim said, "It was Fred White's ORHS Algebra II class that got me really excited about math." Completing AP Calculus in his senior year and seeing the rich applications further piqued Jim's interest in applied sciences. Biology teacher Albert Diehl recommended Jim for a National Science Foundation Summer Science Training Program at Stevens Tech in Hoboken, NJ. This pre-senior year program exposed Jim to matrix math, computers and Assembly language (PDP-11), and to a group of brainy peers, some of whom would later become his university friends.

Before his junior year, Jim completed an adult education course on the ORHS IBM 1620 computer. The 1620 was a Volkswagen-sized machine that required programs to be processed on punch cards. Jim remembers learning Fortran 2 under ORHS teacher Barry Fernandez and being encouraged to innovate and design his own project ideas. It was the beginning of true academic joy for Jim's group of ORHS friends/computer geeks. Their amazing project ideas fed upon each other, and one of those projects became a "secret weapon" for ORHS athletics.

Jim was enlisted by his computer teacher, Barry Fernandez, and also Wildcat coach, Emory Hale, to create a computer scouting report for ORHS football. Though Jim did not play football, he could translate the coach's review of opponent's game films into a coded format that provided privileged analyses of game play tendencies.

It was Jim's task to enter all the gleaned data by player position, down, field placement, formation, and called-plays into a comprehensive document. He punched one card for every play, ultimately compiling all of a game's plays into a deck of cards to be processed on the ORHS IBM 1620 computer. As the season progressed, the number of cards Jim processed grew larger due to the additional number of game films received from each new opponent.

He proudly recalled Coach Hale running the football field sidelines with a multi-page roll of computer papers stuck in his back pocket. Jim was especially thrilled to watch Hale occasionally rifle through the roll of pages for just the right play-call.

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The football season of 1972 initiated the new "secret weapon" for Wildcat football. Jim was quite surprised to be rewarded with a special ORHS letter, the first-of-a-kind, an ORHS computer letter. Although Jim did not wear his letter on a jacket, he has kept it as a special ORHS memory. Jim's classmate and close friend, Robert (Butch) Meyers, developed computerized ORHS basketball stats the same class year. Their programs continued to be used by ORHS coaches well beyond the 1972-1973 sports season.

It was clear to me that as of his ORHS graduation, Jim's inventiveness would take him far. His university and professional career highlights will be chronicled in a second installment that you don't want to miss. Jim Pollock has been on the forefront of engineering science and creative problem-solving projects affecting important societal and technical issues.

What did I tell you? Jim's story is just beginning. We have had a wonderful look back on a part of Oak Ridge history often overlooked, the social history. And we have been given a glimpse of the innovative and creative genius of a young high school student in a time when punch cards, not digital memory served to hold data. Seems cumbersome now, huh...but Jim made it work for him! Next you will see other amazing things Jim has done in his career.



Bill Pollock shown in an Ed Westcott picture taken at the East Recreation Center in Oak Ridge

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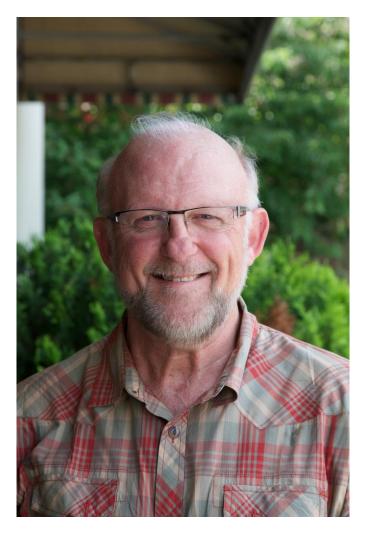


Jim said of this letter, "My lovely ORHS Computer Letter... which I never had the nerve to put on a jacket and wear!"

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Jim as the group waited for the flight to Germany with Ms Ledgerwood's Combined Studies trip



Jim Pollock