Southeast History: The story of a Sellwood cottage, linked to Tektronix

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Intel was not Oregon's first major technological industry leader! An earlier one started in Sellwood

EILEEN G. FITZSIMONS - Except during his military service World War II, this house at 1115 S.E. Lambert Street was continuously the home of Howard Vollum, from the age of four until he was thirty-seven. According to one account, it was here - in the basement of his parent's home - that he developed the prototype oscilloscope that launched Oregon's Tektronix.

A stable home life, encouragement of curiosity, and educational opportunities are more important to a successful childhood than the style or square footage of their physical dwelling.

And, discounting its invisible full cement basement, one particular small undistinguished structure contains less than 1,000 square feet of living space – including two small bedrooms and a single bathroom.

But, it was the home of a local boy with a curious mind, who by his own admission when he was close to the end of his life at age 73, never stopped asking questions and learning. In the mid-1940's, that mind led to the start and growth of Tektronix, one of the first businesses in the "Silicon Forest" in Washington County. By the early 1980's "Tek" was the largest employer in the State of Oregon, with 24,000 workers, including those in overseas divisions.

There are technically-detailed and extensive business histories of the Tektronix company online; but I was more interested about what led up to its successful launch in 1946, and how its co-founder may have been shaped by his time in Sellwood.

Howard C. Vollum was born in 1913 to Julia (Rieschel) and Charles A. Vollum. The couple lived on Lexington Street for a few years, before moving into the house at 1115 S.E. Lambert in 1916. Charles was an automobile mechanic; and, prior to her marriage, Julia worked as a stenographer for the Miller family, owners of the East Side Lumber Mill, then at the foot of Spokane Street.

Julia's parents lived just two houses away, at 1143 S.E. Lambert. (For many years, Lambert Street, between S.E. 13th Avenue and Sellwood Park, was "Leo Street", a name that still shows in some curbstones.) Both the Vollums and Rieschels were devout Roman Catholics and lifelong members of St. Agatha's Church. When he was five years old, Howard was joined by a brother, Lawrence, who completed the family.

Both boys attended St. Agatha's grade school, which had only just opened in 1912. Originally a two-story brick building (demolished in 2000), the school had classrooms on the first floor and a chapel on the second. In the first year the two classrooms housed 35 pupils; but, when the church across S.E. 15th Avenue was completed in 1920, perhaps the chapel space upstairs was reused for instruction. Howard graduated from St. Agatha's in 1926; and by that time he was already interested in the technological marvel of that time, the radio.

Well into the 1950's, radios were powered by clusters of large, elongated glass vacuum tubes, containing a small wire filament that glowed orange as the tubes warmed up. They were often housed within large wooden cabinets, with a piece of fabric over the loudspeaker, and were activated by clicking an On/Off knob by hand. There were other dials for selecting stations and adjusting the volume. When a tube burned out, the radio was taken to a repair shop where a technician removed the back of the cabinet to determine which tube required replacement. Sometimes wiring had to be restored as well.

In an interview in the early 1980's, Howard remembered that he had become interested in radios at around the age of ten, when for a few years his father assembled and sold radios.

In addition to his studies, and interest in radios, Howard probably took advantage of the nearby public library, which was then one block from his school. Besides books, the library offered a wide range of magazines, such Popular Mechanics, which encouraged inventive do-it-yourself projects.

Also nearby was the Sellwood Community House, which provided activities for children. Howard learned to play tennis, as instruction was offered through the Parks Department during the summer. A 1926 Oregonian article on tennis tournaments at Sellwood Park included a photo of three "young racquet wielders": Wayne Lucas, 12; Arden Hoffman, 10; and Howard Vollum, in his second year of competition. While his two friends were dressed in shorts, Howard was wearing bib overalls.

COURTESY SMILE HISTORY COMMITTEE - This house, at an unknown Sellwood address, was photographed in 1909. This historic image shows a different structure of the same age, and almost identical construction, to the Vollum home - which over time acquired replacement windows, porch pillars, wide plank siding, and possibly the fireplace.

It is unclear where Howard went to high school. One account states it was "St. Stephens High School (now Central Catholic)", which was until recently an all-male institution. However, the website for Central Catholic lists 1939 as its founding date, and there is no mention of it having another school prior to that time. Several parochial and public high schools have closed over the years, and hopefully a BEE reader will be able to clarify this.

Wherever he went to high school, Howard spent two years at the University of Portland (which was not coed until 1951). He wanted to be an electrical engineer, but either was not accepted at Oregon State University (then "College") or, as the Great Depression lengthened, he could not afford to move to Corvallis. Instead he entered Reed College, presumably living in his parental home on Lambert Street, and graduated in the spring of 1936 with a degree in physics.

His relentless curiosity and increasing mechanical skills had led him to assemble an oscilloscope while he was at Reed; but the timing was not right for its commercial development.

In September of that year, Reed College noted the success of its 73 graduates who, unless they were pursuing postgraduate studies, were almost all gainfully employed. Howard was one of those lucky ones, and had found a job building radios for the U.S. Forest Service at Radio Specialties Company for 35 cents an hour.

One day he entered the radio/appliance repair shop of Jack Murdock on S.E. Foster Road. A few years younger than Vollum, Murdock had graduated from Franklin High School. His father offered his son the option of attending college or opening a business, and Jack had chosen the latter. Sharing their mutual interest in electronics, the two young men developed a friendship, and Jack hired Howard to repair radios for him in the house on Lambert Street. Howard delivered the radios to the customers, collected the fee, and give his employer a share.

In 1939, at the age of 26, Howard was drafted into the Army, and Jack sold his business and joined the Coast Guard. The two corresponded during World War II, and mused about working together at the end of the conflict.

The almost five years that Howard spent in military service provided him with the equivalent of an advanced degree in electrical engineering, or applied – not theoretical – physics. After basic training, his knowledge of electronics, radios, radar, and oscilloscopes was quickly recognized, and used in several ways. Initially assigned to the Signal Corps, he was sent to England to serve as a radar maintenance officer. Instead he was promoted to development engineer and spent two and a half years perfecting high-resolution radar, which improved the accuracy of artillery guns on the English coast at Dover. This resulted in the sinking of German warships that tried to approach the coast at night and earned Howard a Legion of Merit medal.

He returned to the U.S. just before D-Day, and worked on radar for use by the Army Ground Forces – enabling them to detect and locate enemy mortars and conversely, improving the placement of American mortars. For these efforts Howard received a second Legion of Merit award.

Discharged In 1945, Howard returned to live with his parents in Sellwood. He and Murdock reconnected. and began planning in earnest; but Howard commented later that the first two years were a struggle. After decades of the Depression, and then the War, a large open window of opportunity arose for technology that was developed, tested, and ready for commercial and public use.

In the basement of the Lambert Street house, Howard developed the prototype of a highly reliable but reasonably-priced oscilloscope which could be used by engineers to measure and display electronic signals (for detailed explanations and use, I suggest readers visit the Tektronix website!). One of its immediate applications was measuring and improving the signals of a promising new technology – television. Jack Murdock worked on designing and setting up a production facility, a two story-building at 712 S.E. Hawthorne Street. In 1946, Vollum, Murdock, and three other men each put up $2,400, and incorporated "Tektronix".

The oscilloscopes were hand-built with parts that were also fabricated by "Tek" to insure the best quality product. A subsidiary business later operated from a small building on S.E. 13th and Spokane Street, now the location of Notary Ceramics. At "Panelcraft", the fronts of the metal boxes that housed the oscilloscopes were etched with hydrochloric acid before holes were drilled for control knobs, dials, plugs, and screens.

Howard's younger brother Lawrence, who also lived in the Vollum home, was in charge of Panelcraft. He had spent three years at the University of Portland, studying engineering, before serving in the Air Corps. Howard and Jack traveled to trade fairs, displaying their 65-pound oscilloscope and promoting its use. They were successful, and orders were soon backed up for months.

As Tektronix began its successful ascent, the young Vollums faced personal challenges. First of all, their mother Julia died in 1949. A year later, their father Charles also passed away. By that time, Howard had met and was courting his wife-to-be, Jean Kettenbach. In late August of 1950, two months after their

father's death, the Vollum brothers traveled north to Jean's hometown of Calgary, Alberta, where Howard and Jean were married in a simple ceremony. Afterwards, they had a brief, convenient honeymoon in the Canadian Rockies before returning to Portland, presumably into living quarters of their own.

Lawrence remained in the family home on Lambert Street, until his unexpected death in 1954. As he was hand-cleaning saw blades in an open pan of carbon tetrachloride, he was overcome by the noxious fumes. The inhaled chemical affected his organs and, despite a desperate flight to Vancouver, B.C. where an attempt was made to save his life with an artificial kidney, he died two weeks after the exposure.

Following Lawrence Vollum's death, the home on Lambert Street which had housed his family for almost 40 years was occupied by a relative, and then by a close friend of the relative, and then was sold. Now it has been sold again.

The realtor who handled its most recent sale has long-time personal connections in Sellwood, and was well aware of its history. It is to be hoped that the new occupants will appreciate the home's long and interesting connection to the beginning of the technology industry in Oregon, and its many years of sheltering a home-grown Sellwood genius.