The Birth of a Radio Man

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This is a description of some of the first radios I acquired woven into the story of my childhood. Whether my life sounds similar to your childhood, or is so foreign that it sounds somewhat pathological, I hope you find it entertaining. These radios are not my most exotic, but they all have great sentimental value.

I spent my childhood in Cooksville (later called Mississauga), west of Toronto. My mother will tell you that I was born loving electricity and electronics. Sparks flew when they cut my umbilical cord. My earliest scribbles were of telephone poles and electrical circuitry as shown in Figure 1. (I have not examined them recently, but I should, in case there are ideas worth patenting). I had no time for the usual boyhood interests such as trucks or planes or baseball or hockey.

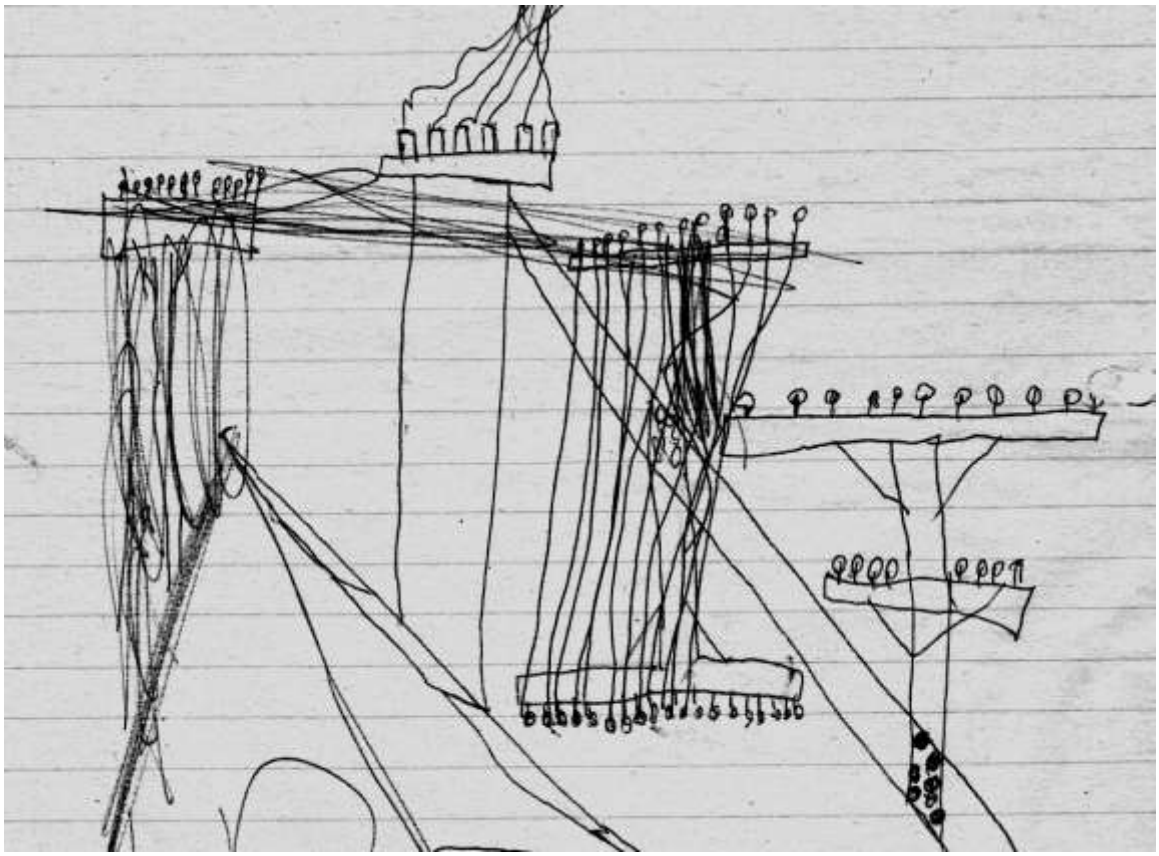

Figure 1. A circuit featuring telephone poles, at the tender age of 5. You will note that I had no fear of complexity in electric circuits.

Many people remember certain gifts in their childhood. Typical memories might be a certain GI-Joe action figure or bicycle or book. One of my most memorable gifts (received when I was about eight years old) was a box of insulators taken from telephone poles in Prince Edward County. (I always assumed that these were not in service at the

time they were procured) These insulators, even with today's inflated prices, are not valuable, but to me they were priceless. I never used them for anything; they were lined up on display in my bedroom, and I still have some of them. Another memorable gift was a box of old electrical fixtures that had been removed from a demolished house. Switches, thermostats, timers, motors, sockets were all wonderful to hook up or take apart. However, my real interest became radios.

My first radio was an Armaco crystal set that I received from my Aunt Joan some time before I turned seven. It had a little ferrite coil wound with Litz wire. I recall one experiment in which I discovered that the wire *did* need to be neatly wound on this ferrite; scrambling it up in an untidy mess resulted in seriously degraded reception. My next radio was a basic RCA 5-tube AC-DC set in a partly melted maroon coloured cabinet, a cast-off from a friend of my father's. Miraculously, I repaired it. My technique at the time was a primitive but effective 2-step process: 1) Go to the variety store and test the tubes. 2) If a component smokes, replace it. Interestingly, this approach works very well with capacitors but less well with resistors, however luck favours the naive.

Figure 2. Viking Radio

My third radio, an Eaton's Viking 5-tube AC AM-SW set (Figure 2) had been in the family for years, and was given to me by my Grandmother. In my mind, this radio was just about the oldest thing I had ever seen. I remember that there was some sort of 4-digit

serial number starting with an 18 on the chassis, and I thought this might have been the year of manufacture! In fact, it is circa 1946, making it about 23 years old at the time (I was only about 9 years old). It was repaired in my usual manner, and I still have it. The variety store tube-tester said it needed to have the 6F6 tube replaced. Consulting the holy book (the Electrosonic catalogue, which was almost always at my side), I discovered that this would cost almost $6.00, which was several months wages at that time. My father took me to the main Salvation Army store in Toronto, in the hope that I could procure the tube there. The upper floor of this huge building had one corner devoted to radios. I recall at least a dozen floor-model radios from the 20's and 30's (I didn't know their age then, but appreciate this in hindsight. I went back several years later, but the entire "radio department" was gone). They didn't have a 6F6, but sold me a 6V6GT (for 25 cents), which they assured me would work. I was skeptical because a 6V6GT doesn't look anything like a 6F6, but it did the trick.

I had also looked through my Grandfather's box of old tubes (Back then, everyone had a box of old tubes, but my Grandfather's was probably much older than most). I was very disappointed to find that none of them looked anything like a 6F6. Most had only 4 pins, and you couldn't see in them because of the gold deposit inside the glass. "A bunch of useless tubes", I thought. I kept one 201A (which I still have). My memory of this collection is vague, but I think there may have been some WD-11's, some peanut tubes, and even some tennis ball tubes. Years later, I went back to look for them, but was unable to find them.

Figure 3 "Sheffield" Tombstone Radio.

One of the fondest and most vivid memories of my childhood is when my parents went on vacation, and left me with my Grandfather and Grandmother in Picton. I could write pages about my Grandfather, but suffice it to say that he collected everything in his house, garage, shed, and other outbuildings. As much fun as his house was, I did not appreciate being left there, as I was about 10 years old, and this was my first time staying anywhere without my parents. I remember crying helplessly until my Grandfather brought me a nice little 4-tube early 1930's tombstone radio (Figure 3). My concern about my abandonment evaporated immediately, and I became focused on radios. Recognizing success, my Grandfather brought me several radios throughout that week, including a Radiola 16, Radiola 33, Radiola 28, and he even took me to the town dump

where I picked up some old TV chassis. After that trip, my Grandfather often gave me old radios when I visited.

Figure 4 Radiola 16.

Figure 5 Radiola 28V.

This tombstone, shown in Figure 3, is called a “Sheffield”, and I believe it was made by RCA, but I know nothing more about it. It is a TRF set that uses a 57, 58, 2A5, and an 80. This radio presented a mystery to me because it produced no sound, didn’t smoke, and I couldn’t test the tubes (my variety store tester didn’t have the right sockets), so my usual repair technique failed. I noted that the screen grid of the 2A5 turned red. It was many years later after I had refined my repair skills that I discovered that the output transformer was open. Although it now works, I’d welcome any information anyone can supply on this radio because I believe it was improperly rewired at some point.

The Radiola 28V in Figure 5 always worked. I replaced some wires (inexpertly), and turned it on once a year with the thought that this would keep the capacitors healthy. The Radiola 16 in Figure 4 never worked, probably because I didn’t have the correct power supply for it. I’m sad to say that life has been too busy for me to get back to it. I can’t imagine how it survived my childhood years without being taken apart.

Later that week, my Grandfather took me to a friend’s house, Mr. Miller. He had a Northern Electric radio, Figure 6, which he said I could keep if I could fix it. This seemed bizarre to me; shouldn’t I keep it only if it proved to be junk? Anyway, I was able to fix it, with a $2.19 50L6GT from Canadian Tire (As I recall, in 1970 any tube sold for $2.19 at Canadian Tire). But, the radio I really wanted was Mr. Miller’s GE floor model radio,

which was in the corner of his barn. I recall it had a 6U5 “Magic Eye” (The radio had its instruction manual, so I read all about it), and the cutest little tube I ever saw: a 6H6. As soon as I got back to the house, I looked these fascinating tubes up in the ARRL Radio Amateur’s Handbook (I nearly always had one of these signed out of the library). Thus started my infatuation with tuning eye tubes, which I still have to this day. I recall I asked for a 6E5 for Christmas that year, and my parents weren’t sure what to make of it! Sadly, I never got the GE radio.

Figure 6 Northern Electric 5200 with expertly repaired cabinet.

With such a primitive approach to repairing radios, I discovered that many could not be repaired. I would generally disassemble these “unrepairable” radios. I recall a late 20’s battery set, and a very early German transistor set that met this unfortunate fate. About the age of 11, I looked back at my long career and realized that some of the radios that I had disassembled could have been repaired, and I regretted what I had done. So, I made a pact with myself: I would not disassemble any radio, regardless of how hopeless it was. I wrote out a vow to this effect, and taped it to my bedroom wall so that I would always be reminded of my past sins. I kept to this pact for a long time, probably 5 years (which, to a kid, is a very long time).

Figure 7 Stewart-Warner Model 404.

Almost every time I visited my grandfather, he had picked up a new radio for me. In the ‘70s, good radios could be picked up at auction sales for a dollar or two. For example, I present a nice Stewart-Warner in Figure 7, a Marconi in Figure 8 and an Astro (from Long Beach, Ontario) in Figure 9.

My Grandfather had a friend who was a radio amateur, Morley Wiltse VE3CYW. Mr. Wiltse gave me his entire collection of Popular Electronic magazines (since the inception of the magazine), which I still have, and numerous boxes of electronic stuff. I read each Pop’ Tronix cover-to-cover, usually several times. Partly because of his support, I earned my ham radio license when most of my peers were trying to earn their driver’s license.

Figure 8 Marconi 105A, in an unusual flocked steel cabinet.

By the time I was a teenager I had determined my career. There was no doubt whatsoever that I would become an electrical engineer. In the third year of engineering school, when I had to start specializing, my choices were easy to make. Again bucking the trend set by most of my peers, I avoided computer courses, and took courses related as much as possible to radio.

Figure 9 Brand & Millen P511 "Astro".

I look back and see a trend in the value of electronic stuff. As a child, radios seemed rare, precious commodities, probably because I did not have much of a network to help me collect them. I would never turn down the offer of a radio! Now, I find that I must consciously discipline myself to purchase only the most appropriate radios. As a child, many of the older tubes were rare and expensive. This was because RCA was still officially in the tube business, and tube prices were still mostly set by them. Now, with the help of the Internet and OVRC, most tubes are readily available, economically. My first oscilloscope, an Eico 425, cost $20, used, in the early 1970's. I've recently seen better oscilloscopes available for much less in 2006 dollars. I think this trend is occurring because there are fewer and fewer people interested in tinkering with electronics. Many of those who would have, may have been seduced by that little byproduct of electronic development: the computer. Notwithstanding certain audio tubes and AK breadboards, I find this a very economical hobby.

I leave you with this message: Please keep an eye out for young people who show an interest in radio and electronics. Some of the stuff that I see given away at the beginning of club meetings would be appreciated and loved by these young minds, and could encourage a worthwhile career in electronics. The support of my grandparents, aunts, uncles, friends, neighbours, and friends of friends helped me learn about electronics, and this has blossomed into both a career and a great hobby. Look at your nephews, nieces, neighbours, and try to find a spark of interest that you can ignite into a flame.