Against All Odds

Royce Oliver Young
(June 6, 1920 -)

Memoirs of Royce Young's life thus far, tracing his journey of learning. Edited by Maya Leland. (October, 2005)

Against All Odds

I was born on June 8, 1920, delivered by a midwife at the family home in Shooters Hill, a little village tucked away in the rural hill country of Clarendon, Jamaica. This is the Shooters Hill of Pickapeppa fame, the spicy tamarind-based sauce that you can find in supermarkets around the world.

I was the third child in our family's pecking order, and very early on, fate was to deal me a blow that in those days usually meant a quick end to my story.

As the story goes, I was just two years old, happily playing in our stable. A horse was quietly munching hay nearby, and in my two-year-old mind it probably looked like something interesting to explore. They say I tickled the poor beast. Startled, the horse kicked, and the kick connected with the right front side of my head. I don't remember the incident. My only memory is seeing blood in a washbasin. Mother was holding my head over the basin, trying to stop the bleeding.

Frantic, she rushed me to the hospital in Mandeville. The news was not good. The kick had fractured my skull, leaving a large, gaping hole in my head.

"I'm sorry, Mrs. Young, but the injury is too severe," the doctor told Mother. "There's nothing we can do for him."

He told her to take me home and prepare for my funeral.

Mother Knows Best

Obviously, the doctor didn't know Mother.

Instead of taking me home to die, she took me to a Chinese herbalist. He brewed up a homemade salve and instructed her to apply it as a plaster to the wound. Well, I am here to tell you that miracles do happen. The plaster drew out the pus and healed the wound. Chinese medicine and a determined mother snatched me back from the brink of death. As my wound healed, I was able to eat and regain my strength. Mother told me that I had

lost some early childhood memories, but otherwise was a normal child. From that time on, the plaster became a treasured household remedy.

Lowered Expectations

For years thereafter, though, I sensed that Dad and other relatives thought that my brain was permanently impaired and that I would be hopelessly uneducable. Perhaps I was slow to "get it" because of the damage to my frontal lobe, so the assumption was that I couldn't learn.

Strangely enough, it never bothered me that I was considered a simpleton. In some ways I was glad, because it meant I didn't have to meet parental expectations. No pressure to perform at all!

Mother, on the other hand, had other ideas. She must have seen some spark of intelligence in my damaged brain and set out to nourish that spark. Whenever I made an attempt to learn or to do something I enjoyed, she encouraged it. I remember she would let me work with tools to build things and to make flowerpots for her garden.

Back to the Homeland

When I was eight, Daddy took the family back to Hong Kong to start a new life. He wanted the children to have a Chinese education. By this time, there were six of us – Miss Kim, Reggie, Noel, Pearlie, Sonny and me.

Our first stop in China was the village of Yow-Ma-Tie to visit my paternal grandfather and other relatives. I remember that he was a tall, skinny man who smoked opium. I also remember that he took me to the family alter and urged me to "bi-san" (bow) to honor our elders. This was culture shock for a child who came from the isolated rural lifestyle in a predominantly black society in Jamaica. But oddly enough, I felt a sense of relief. I was not sorry to leave the name-calling and racial prejudice I endured as a child, which was the norm for children like me in Jamaica.

Behind the family store on Nathan Road.(L to R) Pearlie, Gloria, Royce with Phyllis on lap, and Gerald. c. 1933.

Make no mistake, there was racial prejudice in Hong Kong, where we eventually ended up, but much less so than in Jamaica. The white customers who patronized our store were more polite and subtle. Their contempt was merely hidden. We should also not forget the "no Chinese allowed" signs in the foreign zones in cities like Shanghai.

A Less Than Stellar Student

During our first year back in China, we settled down in Canton. School was the first order of business. I found out I had to learn Cantonese to attend school. It was not as dramatic as it sounds, because we spoke Hakka at home, which is not so different from Cantonese. But, I was back in elementary school – a school operated by Daddy's relatives – starting over in the first grade at age 8. English was never spoken.

My memories of school are fuzzy. Over the years, after we had to moved to Hong Kong, I was shuffled from school to school to get an education that matched my mental capacity and ability. You have to remember that my age did not match my class level. Of course, no one expected much of a brain-damaged child, so there was no pressure to learn. This suited me fine, as I could really enjoy the classes that appealed to me – math, algebra, and some basic physics. I also remember that Chinese poems stirred me emotionally. So few words can say so much.

So went my education. I barely passed in Chinese schools. Then I went to an English language middle school, La Sales, and at age 15 flunked out in 6th grade. That was the end of my inglorious career as a student. I was a dropout.

There was no blame or anger when I left school for good. What can you expect from a slow learner? I was put to work in the family store alongside Mother and Dad, while the rest of my siblings went to school. My job was to ride a bicycle to dairy farms to pick up dairy products and deliver them to our customers. This would soon come to an end as one day, in my zeal to deliver the goods, I rode out into a hurricane and got blown off my bike. No more deliveries for me. It was back to the store where I was out of harm's way.

A Curious Mind

In the meantime, I turned to things that interested me. I read and studied anything that related to mechanics and electricity – mostly by reading *Popular Mechanics* and *Popular Science* magazine. Mother became my tutor, helping with translation, pronunciation and grammar. I wasn't doing this to get an education, but to build experiments described in

the magazines. I just needed to know how things work. To satisfy my curiosity, I was always taking things apart, and as a result, quite a few watches saw their last days. I experimented with batteries, wire and light bulbs – usually under the blanket or bed where it was dark. I played with magnets, spring-wound cars, popguns, crystal radio sets, and whatever else piqued my interest. Some of my experiments were downright dangerous.

One experiment in *Popular Mechanics* stands out in my mind. It was an early version of a light dimmer. It called for 110-volt AC electrodes from a wall plug and a glass container filled with salt water. The idea was to immerse the two live electrodes in the salt water, then by moving them apart you would reduce the flow of electricity and hence the intensity of the light. Little did I know that one misstep could have been fatal! It wasn't until much later that I realized the danger. These days, you can buy a gadget for a wall switch that will dim the lights, but without the water!

Roy in Kowloon, 1938.

Some of my experiments had very practical applications. At age 17, I built a door lock with an electromagnet and some simple switches that required a code. I wanted to keep people out of my room, and it worked!

Even with these small victories, I can remember envying my brother Reggie's best friend who was a high school senior studying physics. I wished so much that I could learn it as well. It was a pipe dream to me then, as most dreams seem to be at times.

Return to Jamaica

The late 1930s was the beginning of the long exodus of our family back to Jamaica. It was to span nearly a decade as we left Hong Kong in waves. First, Daddy and Reggie left in 1937 to start over in Jamaica, while Mother and the older children stayed behind to help run the store, and the younger ones went to school. Daddy still wanted them to get a Chinese education. In the meantime, he and Reggie would work to get re-established, and eventually, the rest of the family would follow.

Then war broke out between China and Japan. There was a lot of upheaval and general wartime hysteria. Anti-Japanese sentiments in Hong Kong were running high and furious, and stores selling Japanese goods were looted and the goods destroyed.

Our store was hit, and neighborhood hoodlums (I recognized one of them) grabbed goods off the shelves and pitched them out into the street yelling, "Japanese goods! Japanese goods!"

They piled up the goods and burned them. No one was hurt.

Business was already bad, but things got worse. It was hard to keep the shelves stocked, yet somehow we managed to survive. Eventually, Mother closed the store, and she, Ronnie, Damien, who was just a baby, and I prepared to join Daddy and Reggie in Jamaica. The rest of the children would live with relatives to continue their education.

We left Hong Kong just before the Japanese invasion began, which meant our other siblings (Miss Kim, Noel, Pearlie, Gloria, Sonny, and Phyllis) would be trapped by the war. We would not see the rest of the family again until after the war, when Mother and Dad were able to bring them, with the exception of Noel, to Jamaica to start a new life. Noel died of typhoid at the age of 19.

We would learn of the invasion when we landed in San Francisco, and were ordered to disembark. The ship was being pressed into service by the U.S. government as transport for the troops, although the U.S. would not enter the war for a few years yet.

We were marooned in San Francisco for more than a month waiting for transportation to take us to Jamaica. Because we were aliens without landing permits, we were quarantined and locked up in the Angel Island Immigration Facility. Living conditions were poor. Men and women were separated, and we met only during meal times. The meals were meager, which we had to supplement with canned goods we purchased from the canteen. The history of Angel Island is a sad one for Chinese immigrants, and we were happy to see the end of that place. (If you're interested in learning more, go to http://www.aiisf.org/history.)

We eventually boarded a cruise ship for the short journey to Panama. While the accommodations were more humane, we were again quarantined and not allowed to move about freely as Panama was an American territory. During our brief stay there, several of our relatives from Aunt Dora's side who lived in Panama dropped by to see us, but we were only allowed to visit through the wire fence. I never did figure out how they knew we were there. Finally, we boarded a freighter bound for Jamaica.

The trip to Jamaica would be a one-day overnight trip. We, and our fellow Chinese passengers, learned that we would have to spend the journey on the open deck. The Captain, poor man, didn't see Mother coming! Furious, she stormed up to see him and demanded cabins for the passengers. We got our cabins!

When we arrived in Jamaica, I remember that Daddy, who had been sick with worry over our long and unexplained delay, was very upset with Mother for not letting him know of our predicament. Mother had to explain that we were not allowed communications of any kind.

Working in the Family Store

While war raged in China, the family in Jamaica waged its own campaign to establish a new business and a new life in May Pen. The entire family worked, and I began my career as a store clerk. It was hard, tiring work.

Six days a week, my routine was the same. Rise at 7 a.m. Open the store and prepare for the early customers. Shortly after, Daddy and the rest of the family would join me. Daddy would close the store at 7 p.m., then he would take his turn at the tavern next door, which remained open until 10 p.m. During the early years, Reggie managed the tavern and put in equally long hours. We all worked six-day weeks, taking Sundays off – except Daddy, who manned the tavern from 3 to 9 p.m. Daddy worked hard all his life, and would work right up to the time of his death at age 70 in 1956.

Most of my free time in the evening – usually after dinner – was limited to listening to music and the radio in my room until it was time to go to bed. There was a movie theatre and a few bars for the local people. Social life there was nil. I had few friends, and not much to do. It was a struggle readjusting to my childhood culture of racism and the stifling environment. On Sundays, I took up carpentry and built myself a desk and bookshelves, and whatever else Mother needed for the house and her garden – always the garden. It was her passion, for which she was renowned. Her garden was an oasis of fishponds, roses, orchids and fruit trees.

With such small pleasure and endless hours of work as a store clerk, the future seemed far away.

Bottle Caps and a Hawaiian Guitar

If there's one thing you have in a tavern, it's lots of bottle caps. Fate, in the form of Coca-Cola bottle caps, was about to intervene in my seemingly dead-end life. Coca-Cola had launched a promotional contest with an entry fee of 25 bottle caps. How could I not win? So, I entered the contest – and won first prize, which was a cash prize. I can't recall the amount, but little did I know how it was going to change my life.

When I was 16 and still in Hong Kong, I learned to play the Hawaiian guitar from a friend, Paul Lee, who had a band consisting of himself and his three brothers all playing different instruments. I even played in concerts! I also was quite proficient at playing the harmonica, but the guitar gave me the greatest pleasure. Suddenly, here I was with my cash prize to do with as I pleased. I immediately sent away to Sears Roebuck and purchased a Hawaiian electric guitar. I also bought a few small gifts for Reggie, and saved the rest of my windfall.

The guitar saved my life. Aside from brightening my days, indirectly it re-ignited my interest in learning about how things work.

It happened when the amplifier went dead. I couldn't get it to work. Well, old instincts die hard, and I immediately took it apart to see if I could figure out the problem. Only thing was, I didn't know a thing about amplifiers. I did notice, though, that one of the vacuum tubes was glowing red hot, which was very abnormal. I took notes, and wrote to Sears Roebuck, explaining the problem. The truth is, I didn't expect to hear from them. You can imagine my surprise when, one day, I received a package with a part and instructions on how to replace the defective one in the amplifier. Based on my observations, they were able to diagnose the problem and send the right part. Now, I had to find the defective part and figure out how to replace it. Happily, I managed it and was elated when it worked! Now, I wanted to know how amplifiers worked.

Suddenly, a dying ember found new life and I rediscovered my insatiable curiosity about things mechanical and electrical. I began to ask everyone I knew about books on the subject. Finally, as a friend and I were on a bicycle ride, he remembered an ad in *Popular Mechanics* for a correspondence course on radio and television. Excited, I checked it out and found the ad for the National Radio Institute in Washington D.C. That was it!

I had what was left of my prize money, but needed a little more for the full amount to cover the cost of the course. I asked Mother, and she agreed to make up the balance. Thus began the journey that would change the course of my life.

May Pen, 1941

The Long Journey of Learning

It took two rough and challenging years. There were times when the material was beyond my reach. I would be forced to sidetrack to fill in the gaps in my basic knowledge of math, physics and English. I began to accumulate textbooks on subjects I needed to learn, continuing on to more advanced course material in subjects like calculus. Thank goodness for *"how to in three easy lessons"* books from the States that helped to bridge many gaps – no depth, but adequate as introductions. For more in-depth studies, especially math, I used the Hall and Knight (London) series that helped me build a foundation in elementary algebra. These texts still sit on my shelves today. They are excellent texts that have no American equivalent.

As I slogged my way through lessons, I supplemented theory with practical, hands-on experiments. I worked on my radio, amplifiers, and phonograph players. I also offered, free of charge, repair services to anyone who was willing to let me work on their radios and record players. Through word of mouth, customers and friends began to bring me their broken equipment, and I gained invaluable experience.

I also helped a friend who had a traveling movie theater. He would go from town to town, pitch a tent, and show movies to the local folks. I helped him with his movie equipment, repairing and rebuilding his amplifiers, projectors and portable speakers. He was able to make a living while I learned by doing.

Soon, my interest in electronics began to expand, and I yearned to learn more theory and how to design these gadgets. But there were no correspondence courses for what I needed. The only way to do this was to go to college or university. Not in my lifetime, I thought.

I later discovered that a technical school, the RCA Institute, Inc., in New York City, offered a two-year community college equivalency program in the theory and practice of electronics. But I lacked the basic scholastic requirement – a high school certificate – and the cost was prohibitive. Dashed dreams again.

The Spoils of War

America's declaration of war on Japan had a stirring effect on Jamaica's involvement in the war effort. In exchange for six destroyers, Great Britain gave the U.S. permission to establish a military airfield, named Vernam Field, several miles from May Pen. The town became a magnet for hundreds, if not thousands, of workers, military personnel, and

whatever else it took to build an airbase from scratch. It became a boomtown for almost two years, and our family business flourished.

Every day was like a Saturday market day, the busiest day of the week, and every Saturday was like Christmas market days. It was simply overwhelming. We worked from 7 a.m. to 10 p.m. daily, except Sundays, when we restocked the shelves, replenished goods, and took care of personal business. Mother, ever the entrepreneur, took on extra work supplying the base with local foodstuff such as fresh meat, poultry and special orders placed by base personnel.

My job during that time was managing the tavern, which had become a popular watering hole. It was mayhem. We served bottles of rum poured from barrels, instead of individual drinks from the bar. We restocked cakes and ice cream three times a day. In normal times, we restocked ice cream weekly. We never restocked shelves once the doors opened – no time for that. It was exhausting work, but what a business! Daddy was never happier!

When construction was finally completed and the workers left town, business returned to normal but remained strong. Vernam Field gave us a steady source of income until it closed at the end of the war in 1944. By then, Daddy had the resources to expand the business and acquired other properties in town. Finally, he was able to send for the rest of our family who had been caught by the war in China.

The Fortunes of War

The wartime boom would also buy me a ticket to the future.

One day, Mother asked me if I was still interested in going to school in America. It was something I had talked about with her very briefly many moons before. My answer was a resounding yes! She had discussed it with Daddy, who agreed to fund my education as I had worked in the family business without a salary for five years.

Within weeks, I applied and was accepted by RCA Institute. With fingers crossed, I fibbed about finishing high school.

In February 1944, armed with a student visa, I flew to New York via Miami, landing early in the morning in freezing weather. A school representative met me at the airport and took me to the 23rd Street YMCA, where I stayed for a year before moving to the International House for foreign students near Columbia University.

Registration day at RCA Institute finally came. I had to enroll formally. The moment of truth was at hand. The registrar noticed that I had not produced a high school certificate, and asked why.

"It was lost during the war in Hong Kong," I explained, fingers firmly crossed.

It was obviously a very plausible explanation, because he suggested I take an equivalency entrance exam to qualify for enrollment. I took it and passed.

As I entered a formal educational setting (remember, I flunked out of sixth grade), I was apprehensive about how I would perform. I soon discovered that I adapted quickly and, in many ways, I was more prepared than most. I had a better understanding of fundamental concepts and theories in math and science – all gleaned from self-education and from correspondence courses. Soon, I was considered an outstanding student, and this recognition by my instructors would bear fruit in unexpected ways.

At graduation, my senior instructor said, "If you ever need a job, come see me."

The instructor was Charles Sheer, who was teaching part time at the Institute. In fact, he was pursuing a Ph.D. in physics at Columbia University. He was also the director of the electronics lab in the university's Pupin Physics Department under an Atomic Energy Commission contract. The offer stayed with me and in time, it served to start my professional career in higher education. But that would be some time down the road.

You're In the Army Now

As if to prove that there would be no straight path to destiny, fate again intervened in my life.

Weeks before graduation from the RCA Institute, I received a notice from the local draft board ordering me to appear at a hearing to explain why I had not registered for the draft. Befuddled, since I was in the country on a student visa, I asked the Reverend at the YMCA for advice. The YMCA had been my first home in New York, and I had done community work there with the Reverend. He said he would accompany me to the hearing.

At the hearing I learned that the law required that all adults of draft age had to register for the draft, regardless of immigration status. Violators were subject to a jail term or

deportation. With the Reverend's help, I pleaded innocent and offered to register right then and there, and report for the draft as soon as I had completed my studies. Thanks to the assurances of the Reverend, the board accepted my offer.

Immediately after graduation, I reported for the draft as promised, and found myself in the US Army. By then, the war was over. It was 1946.

Army life was not what I had expected. Because the war was over, I would not be a foot soldier reporting for combat duty. Instead, after basic training, I was assigned to the army's Replacement Depot in Japan as a company clerk. My job was to help with the paperwork for soldiers returning stateside for formal discharge. A simple enough task, you'd think, except that recordkeeping was a mess. Soldiers were missing from the roster and couldn't be accounted for. Many were AWOL or missing, and others were already in the States but still listed as present. Many of the clerks in the group were under educated, and because they couldn't untangle the mess, just added to the chaos. Usually, I would finish my allotment quickly, then move from group to group helping the other clerks with their paper work to reduce the waiting lines.

Enroute to Japan, 1946

After a week working in the platoon, I was transferred to company headquarters to take charge of the paperwork for the entire company, which was plagued by the same problem. The captain gave me (a private) full authority to manage the office, and told me not to take orders from anyone but him.

It took time and patience, but eventually I cleared up the records for the entire battalion. For that, I was commended by the battalion commander and promoted to sergeant. It was a good life, as soldiering goes.

Return to Private Life

After one year of service, I was honorably discharged from the army in 1947. I was a civilian again — a legal resident of the USA, but not yet a citizen – entitled to all the benefits of a veteran. I was given the 25/52 ($25/week for 52 weeks) allowance and, most

importantly, a GI Bill allowance based on time in the service. In my case, it would pay for over 100 college credits. I was free.

I returned to my old neighborhood by Columbia University, rented a room in an apartment house, and settled in.

As required by law, to receive my weekly stipend from my GI benefits, I had to report to the employment office each week and go to job interviews assigned by the agents. After several interviews, an agent urged me to accept an offer from Winters Radio Lab as a radio repair technician. The starting salary would be slightly higher than my $25 weekly stipend. I took the job, leaving behind my 25/52 safety net. It was a fortuitous choice because I met Louis Gelber who became one of my long time best friends.

Doing radio repair work was easy and natural for me. My self-taught skills from my early days in Jamaica served me well. As a result, they gave me the most troublesome jobs to tackle. When television sets first appeared on the market, no one in the shop knew much about this new technology. Because of my correspondence course in radio and television, I became the TV expert. Soon, everyone in the shop learned about TV repair.

Back to School

As routine settled in, I decided to apply to the Brooklyn Institute of Technology using my GI Bill tuition benefits. I was accepted into the undergraduate evening program in electrical engineering, with 60 credits from RCA Institute applied towards my BS degree.

According to my calculations, taking 6 to 8 credits hours per semester, it would take me five years, including summer classes and working full time, to complete my course work for a degree. It would be a long haul but I didn't care. I needed my credentials to move ahead.

It was a long and tiring grind, as the waitress at the local diner could attest. Promptly at 5 p.m. every day, I was at her serving station ordering dinner – the same thing every day. Liver, cooked medium, and milk! After a short subway ride, I was in class at 6 p.m. until 10 p.m. After another subway ride from Brooklyn to 116th Street in Manhattan, I was home by 10:30 p.m. Then bed by 11 p.m. That was my routine for five long years, but I persevered, and graduated in 1952.

Graduation was more a relief than a day of celebration. I didn't attend the ceremony. Instead, they mailed me my diploma, which is still stored in its original tube. For me

college was not the typical experience: weekend football games, and campus life with college classmates. It was a personal affair, and I left without attachment or sentimentality.

I Pledge Allegiance

While I was still working at Winters Radio Lab in the late 1940s, there was another piece of business I needed to finish. I retained an immigration lawyer to help me process my application for citizenship. To my surprise, I found out that the US Congress had rescinded the law that allowed automatic citizenship to foreigners who joined the US Army after the end of the war, as I had. But my lawyer told me not to worry. She didn't think I would be deported. She was right.

Months later, Congress reversed itself and reinstated the provision. My lawyer told me that all was well, and I would be receiving a notice to appear for a hearing about my case. At the hearing, the judge asked me questions about the US Constitution and American history. I was puzzled, as I didn't understand the purpose of the questions. After answering several questions with his help, he smiled and motioned me to go. I realized it was not a hearing about whether I was eligible for citizenship, but for actual citizenship! Several days later, I received my naturalization papers in the mail.

New Doors Open

With citizenship in hand, I was now able to expand my job opportunities to areas where only citizens were allowed. My first move was to visit my senior instructor, Charles Sheer, from RCA Institute, who had once offered me a job.

At the Pupin Physics Lab

Sheer was true to his word and hired me to work at Columbia University's physics lab, where he was still director of the electronics lab. He did not go into detail about my job, and I didn't ask, nor did I care. It was in my specialty, and that's all that mattered. It turned out that I needed top secret clearance from the FBI, and in due

time I was given clearance to be a member of the Pupin Physics Laboratories of Columbia University. This was 1949.

Dreams Realized

The Pupin Physics Labs group was part of the Manhattan Project, the top secret project established during World War II to develop the atomic bomb. Columbia University was a member of the consortium that was contributing to this national effort. Some of the key players were renowned scientists and Nobel Laureates.

After the war, the lab continued its mission of conducting basic research in atomic energy and other nuclear research projects sponsored and funded by the Atomic Energy Commission. The program was also linked to the university's physics graduate program, and to many national and international laboratories and universities.

My own career at the lab spanned ten years. Starting as an electronic engineer. I was solely responsible for setting up a group of technicians to design and fabricate electronic circuits, power supplies, and control circuits to create a 16-channel slow-neutron energy spectrum analyzer designed by one of our scientists. We completed the project in 12 months – six months ahead of schedule. As a result, I was promoted to assistant director of the electronics lab. Then in 1955, when the director left the lab, I was promoted to that position, which I held for four years.

In 1959, I became head of the Hudson Laboratories electronics department, also at Columbia University, and was there for nearly 10 years. I headed up a staff of 130 professional and technical personnel including engineers, mathematicians, computer technologists and other highly trained technicians. I also directly supervised the department's engineering and scientific programs in support of the basic oceanographic research programs in sonar technology for the Office of Naval Research.

From Scientist, to Entrepreneur, to Teacher

After I left the Hudson Labs in 1968, I decided to try a new career path, and served a brief stint in the financial world as a stockbroker with CB Richard Ellis. I also became involved in a number of entrepreneurial ventures in the restaurant business (founded The Orient Room across from Gracie Mansion in New York City, and Golden China restaurant in New Jersey, which is still a thriving business), and in real estate, developing single-family homes and apartments buildings. The real estate business, while initially successful (four

apartment buildings and a development of 12 single-family homes) during the housing boom of the late 60s, finally went bust when the housing bubble burst. I lost my investment in the venture.

I also continued my scientific career by consulting on a number of projects, including developing a prototype indoor golf machine for a small manufacturing company. The Golf-O-Tron simulates a golf course environment so that golfers can swing and drive golf balls as they would in an open field. The technology served as a model for others who went on to develop indoor entertainment centers. The Golf-O-Tron was featured in the science-fiction move "Out Land."

I also designed and developed several airborne uranium detectors for mining companies for the Sherwin Instrument Company; and consulted for Hydro-Tech, Inc., a company I helped to create that manufactured hydrophones and other electronics instrument for oceanographic research.

Finally, in 1972, I joined the faculty of the School of Theoretical and Applied Science at Ramapo College of New Jersey to serve in the exclusive combined title of Professor of Mathematics and Physics. In spite of the fact that I did not have a Ph.D., I was awarded tenure based on my qualifications, and with it, full professorship in math and physics. I eventually retired in 1990 at the mandatory age of 70.

Not a bad result for a child who couldn't learn.