An Anthology

dedicated to Howard Vollum a man of quiet genius

Testimonials excerpted from an August 1987 book

Foreword

Humility. It is the ability to live with the influences of success and prominence without growing haughty. It is also the definition of a man who treated all people as his equal; who made the time to sign Christmas and birthday cards for over one thousand employees; and who oversaw the success and growth of the largest employer in Oregon, Tektronix, Inc. This man was Howard Vollum.

Howard, a natural-born teacher, was always willing to explain a difficult concept to an interested listener. As an electrical lab instructor during his junior year at Reed College, he helped students grasp the complexities of oscillation. An electrical genius with insatiable curiosity, his final project at Reed was to construct an oscilloscope, at the time, 1934, an ambitious undertaking.

Anxious to create and offer a better oscilloscope after World War II, Howard and a life-long friend, Jack Murdock founded a company based on the principles of quality and innovation. The motto of the company was 'Committed to Excellence.' What emerged from the partnership both revolutionized the oscilloscope industry and changed the relationship between management and employees.

Having faith in people and what they could accomplish, Howard and Jack allowed employees the opportunity to use their creativity, to further their education and to have an active participation in the company through profit share and stock ownership. Not only were all employees on a first-name basis, but no private offices or assigned parking spaces existed.

Howard's affinity for people and contribution to the electronic field have been lauded by many. He has been honored by institutes of higher learning, hospitals, scientific and medical research organizations and the arts. Shortly before he passed away, the Ecumenical Ministries of Oregon presented him with the 1985 Ecumenical Humanitarian Award.

The following anthology is dedicated to Howard. It is a collection of memories, stories and comments from the people who knew him. They are sincere, genuine and sprinkled with words of admiration about a man who gave so much to so many.

> Howard Vollum 1913-1986

James B. Castles Julie A. Stark

Tinkering With Radios

In about 1923 or so, I lived across the street from Howard. While the rest of the boys in the neighborhood were out playing baseball, he was in tinkering with his radios. Howard and his father used to repair radios in their garage. After his grandmother died, the family moved to Sellwood. While still repairing radios, Howard used his CRT to test the circuits. I started working at Tek in 1959 when I was 52 years old. When I told my manager I had known Howard for some thirty years, he was impressed!

Charles Porter, retired

Almost Any Subject

When I started working for Tektronix in 1950, the company was located in Portland at S.E. 7th and Hawthorne Blvd. The building was a wood-frame, two-story building. The business office and shop were on the first floor, while the transformer, assembly, and test departments were on the second floor. Periodically, Howard would come upstairs to visit with people and find out how things were going. During one of his visits, we were having trouble with cracks in the upstairs floor beams due to an excessive weight buildup. Howard was telling me that wood beams will really support more weight than they are designed to support. In our case, we had probably overloaded the beams three or more times their designed load. My point is that Howard had vast knowledge about many subjects other than electronics. He could and would talk to anyone about almost any subject you wanted to talk about.

> Kenneth King Circuit Board Production Manager

Man Of Patience

I believe it was in 1952 that Howard took the time to guide us in a class to build an oscilloscope with Tek reject parts. He didn't tell us how to design the circuit, but suggested why it wouldn't work if we got too far off. He was a man of great patience, abilities, and knowledge.

> LeMoyne Warner formerly Technician, Factory Service

The Early Days

I first met Howard and Jack in the mid 1930s, when Howard was a student at Reed College and Jack was running a small radio service shop out on Foster Road. Howard was very interested in electronics (or Radio Theory, as it was then called); he had the best engineering mind of anyone that I have ever met. Jack had some understanding of electronics, but he was better at getting along with people and business organization. When I went to work for Tektronix in 1949, the engineering department consisted of Howard, three others, and myself. I stayed with Tek for 22 years, and enjoyed every one of them. Tektronix was good to me. I'm proud to have worked there. I got to know some very inspired people. I watched the company grow from 30 or so people to well over 10,000. I'm glad that I was able to share in the excitement of that growth. I like to think that I may have contributed a little something to the success of this company which will always be so close to my heart.

> Frank Hood formerly Project Engineer and Manager of Film Dept.

"No, Never."

After serving as an Area Rep, I was invited to a luncheon with Howard and some other Tek VIPs. In a conversation after lunch, we were talking about Tek and how it figured into our past as well as our present. I asked him if, when he started the company, he ever envisioned, even in his wildest dreams, a company like Tektronix had become. A lesser man might have made some comments about planning, etc., but Howard simply said, "No, never." That brief, humble, and totally honest answer is something I will always remember.

> Glenn R. Sharp formerly Assembly/Test Manager, SDP/DAG

Report to Employees

During my first summer at Tektronix in 1953, I attended my first "Area Rep Conference." It was held in the parking lot behind the Sunset Plant at 3:15 in the afternoon. When everyone was assembled, Howard climbed up in the tailgate of a flatbed truck parked at the back of the building and gave us a rundown on orders, sales, and other current events at the company. I believe there were about 450 employees at the time, most of them working at the Sunset Plant.

It was Howard's tone and general demeanor that impressed me most. He spoke slowly, deliberately, and perhaps matter-of-factly about how things were going. At the age of 16, and working as a transformer assembler, I can't honestly say I understood all of what he was saying. It did impress me, though, that the employees were there in the parking lot attentively listening to Howard share with them some of the current events in those early days of Tektronix.

When Howard had finished, the applause was both an appreciation of his comments and a true reflection of the strong spirit of the employees.

The event is true; my recollection of the specific details are probably altered by time and perception. By the way, sales for the calendar year ending December 1953 were \$6 million.

> Terry Cifford Treasurer

The Best Scope Ever

The first time I saw Howard was at the Hawthorne plant. I was working upstairs and Bill Lee, head of the stock room, told me to go downstairs on my coffee break and see some of the things they were doing there. I saw Howard and Jack sitting at a bench working on a huge scope. Everyone in the company at that time was working on oscilloscopes. I told Howard he had the best scope ever and hoped he could keep the company going. He said he was going to keep the company going, but I'm sure he had no idea that it would mushroom.

Samuel Tabsky

Never Too Big

My personal memories of Howard are warm, respectful, and grateful for his leadership. I joined the company in December 1949 and retired in October 1976. "Mr. Vollum" was always "Howard" to his employees... a friendly, even fatherly, leader who never demanded formality. I remember that he always seemed sincerely interested in us, with a remarkable memory for names. No matter how big the company grew, Howard never grew too big to give out awards and care about his family of employees.

> Virginia Levens formerly Lead Operator, CRT

The Honor System

I remember Howard as a kind and friendly person. He took the time to come by at least once a month and speak to his employees; he would ask if you enjoyed your job. He always had the time to listen and answer questions. He was a good person and he never made you feel that he was better than you. He even took time to personally sign birthday cards and Christmas cards, and he trusted us by using the honor system. I don't think there is another company in Oregon that does that.

> Juanaluisa V. Warner formerly Assembler, Plugins, Bldg. 39

Like a Big Brother

When I was at the Sunset Plant, I did work on a project for Howard, and he would stop each week at my bench to see how it was progressing. He would make his suggestions and explain them, like a big brother helping you with your homework. I prototyped the first instrument for the storage tube Bob Anderson designed, and was there when Howard first saw the tube work. I suppose I saw him when he was really excited about a new development, which wasn't much more than a statement such as "This has to go into production."

When Howard was asked if he would say something at a retirement party for a friend, he stepped forward and said, "When I hired this man, I got my money's worth." That was a tribute no fancy words could match.

(Unsigned)

The Best Voltmeter

In early 1960, back in the days when Building 19 WAS the Beaverton campus, one of our hard-working pre-calibration technicians was leaning back in this chair, gazing toward the ceiling. Sensing someone behind him, the technician turned to see who was there. Seeing Howard, the technician said, "Hi, Howard. My voltmeter's busted, and the boss went to get me another one." At this, Howard reached forward and switched the bench scope from AC to DC, saying "There's the best voltmeter in the world," then turned and walked away.

> Ron Clark Technician II

One Special Person

At an Area Rep panel luncheon with Howard in 1974, the group asked him about the company of the past. It was very interesting to hear him telling of starting the company, and how he and Jack Murdock paid the help, then split what was left, which wasn't much. He thought at the time the company would never grow as it eventually did. To me, Howard was one special person.

> Lillian Handley formerly Seal and Exhaust CRT

Give Customers Our Best

I clearly recall when Howard visited the Engineering Group of the 2200 Series in the early 1980s. There was a serious discussion going on, involving myself as European Product Marketing Manager, about whether the 2200 should be 50 or 60 MHz. Marketing wanted it to be 50 MHz, because they believed that was the market requirement. During his unexpected visit, Howard said: "If we can make it 60 MHz, we make it 60 MHz. We, at Tek, always give our customers the best." And, as everybody knows, the 2213/15 are 60 MHz oscilloscopes.

> Steef Van Berg Sales Program Manager, Tek Europe

Quality Hardware

One evening after work, Howard initiated a fascinating discussion with me about doorknobs. He was remodeling his home at the time and had been unsuccessfully looking for "quality" hardware for the doors and cabinets in his house. We talking about it for over an hour. When he stopped, he looked at me and said, "I wish I could find someone who makes doorknobs the way we make instruments." A few weeks later, we passed in the hallway; he said, "I think I found 'em!"

> Gale Morris Computer Operations Manager, CASE

First To Work

In the mid-1960s, I was an engineering manager in Building 50. Frequently, during the rainy and winter season, I would see Howard walk in from way out in the parking lot, and it really got to me that he didn't have a parking spot close to the building. But in time I learned that he truly believed that the "first to work," regardless of position, should park in the closest spots. One evening, when a class was interrupted by a louder-than-usual sound from the shop area, I also discovered that Howard believed in doing some personal maintenance.

Robert Ashand formerly New Product Introduction Manager

Such Thoughtfulness

Howard sent employees Christmas cards and birthday cards. He handsigned every one of them, although they were addressed by someone else (by hand). I once wrote a note to him to thank him for such thoughtfulness.

> Mildred Washburn formerly Electrochemical Plant Secretary

Pretty Proud, Too

I'll never forget when the Tech Center was new. I was then an export specialist in Export Marketing and we were all so proud of our new building. One summer evening I'd worked late, but had brought my camera to take pictures. The parking lot was all but deserted. I kept backing up in the road, completely absorbed in getting as much of the building as possible in the picture. Suddenly I sensed someone near. Turning around, there was Howard patiently backing his car slowly away from me as I moved back in his path. I hastily apologized, saying, "Oh, Howard, I'm so sorry! Why didn't you blow your horn?" He smiled gently and said, "Go ahead, take your time. I'm pretty proud of it too, you know."

> Claire Woodside formerly Senior Export Specialist

Libraries Later

Howard inspired me from the time I had a chance to chat with him in my office when I first arrived at Tektronix. I am sure he was checking me out. But one thing I needed his view on was that it was said of him that he had no use for technical libraries! I asked him about it, since I didn't believe it was true.

Howard shared with me part of the depth of his wisdom. He said, "No, No, Carlos! They don't understand what I really mean. We do not want engineers to try to solve problems by going to the library first to look up what other people have done in solving the problems... that is a sure way to imitate solutions to old problems without seeing the facets of today's problems. We want engineers to try to find out all they can to *define* the problem. What is it? What does it mean? What does it imply? Then go and think about it, tinker and play with it, and come up with your own ingenious ways of solving today's problems. Then, and only then, go to the library and find out ways of analyzing, testing, and then building."

"If you find that somebody else solved it in a similar way...good! It confirms your thinking. No, it is *not* wasted effort. If you are a good engineer, you will have added the insight of today's fresh changing technology. Yes, old problems can be solved in new clever ways."

> Carlos Beeck Frequency Domain Instruments Engineering

No Ham Radio

I felt that Howard considered himself a very ordinary human being, in spite of his brilliance. I was privileged to be seated beside him at the 10th anniversary luncheon I attended. In the course of our conversation, he inquired about my hobbies, and I replied that one was amateur radio. I asked if he'd ever been interested in "hamming." I was surprised, amused, and, most of all, left with an even greater admiration for him because of his candid answer: "Yes, my father-in-law was a ham, but I could never get that code." It was such a startling confession for such an important, highly intelligent man to make. My last impression was seeing him, after his health was failing, trudging slowly from far out in the parking lot toward the back of Building 50. Even then, it was obvious that he expected no special parking privilege. He was a great, thoughtful, "common man."

> Margaret C. Byrd formerly ECB Design, Portables

Made My Christmas

In the winter of 1969, I had been sent to the Netherlands to establish a company called Tektronix Datatek. This company handled European sales of the T4002—our initial venture into the world of graphic computer terminals. It was hard slogging, as we were working in an unfamiliar marketplace with customers less well acquainted with Tek products than those for oscilloscopes. At that time, in fact, few people saw the potential for graphics, and some even found it hard to envision computers providing anything except alphanumeric outputs.

The Netherlands winter just before Christmas was pretty miserable, as was the black-and-white landscape (compared with Oregon's coniferous green), and the ice round the motel where I was staying with my wife and ten-yearold daughter would have delighted only Hans Brinker. The business climate wasn't so hot, either.

Shortly before Christmas, I received a card from Howard on which he had written, "Keep up the good work, Ramsey." It more than made my day—it "made my Christmas"!

Ramsey Chaffey formerly Distributor Administration Mgr., AMPAC

Birthday Cards

Until the early 1970s, Howard used to send personal greetings to all employees on their birthdays. The company had (I believe) over 2000 employees at this time.

When Roger Carter had his 10th anniversary with Tek, Howard gave him his pin at the party and we gathered around to congratulate Roger and got into conversation with him and Howard. We were just chatting when Howard said, "You have a birthday coming up this month, Harry. I signed your card this morning." Someone asked him if he signed all of the birthday cards that were sent out. He said, "Yes, my secretary makes them up ahead of time and brings them in to me in batches. I look at who they are for and sign the cards."

He was asked, "What about the people you don't know?" He replied, "Oh, I just sign them. But those who I do know, I hold their cards and reminisce."

I feel it a privilege to have known such a fine man.

Harry Stewart Retiree

A Serious Mistake

One time in 1960 or 1961, the wrong kind of solder had been used in some instruments, quite a few in fact. They set up a large group of tables or workbenches in the warehouse so some engineers could come over, check them out, and put in new parts and the correct solder. Seems acid solder had been used instead of rosin solder. I was the supervisor and person responsible for getting this all set up for the engineers to use the next day. About 10:30 or 11 p.m., Howard and Bob Fitzgerald and a couple of others came through to see if we were done. Howard put his hand on my shoulder and said, "Well done; thank your crew. This is a very serious mistake that has happened." He sure did not want those scopes going out if they were not the best, and he also personally checked to see if everything was ready for the job to be done. I always felt he was the best. They just didn't make many like him!

Charles Dubbels formerly Metals Forming, Small Parts

Never That Big

After showing a prototype of a new three-inch scope at the Institute of Radio Engineers (IRE) Show in New York, Howard had me order 100 3WP2 CRTs from the Dumont CRT Division. These were to be used in the first production run of the new scope.

At the WESCON Show, in the fall, we introduced the 315 Oscilloscope which featured this flat-faced CRT. Among the visitors to our booth were several engineers from the scope division of the Dumont Company. They were impressed with our scope's performance, but were mostly interested in the flat-faced CRT with the fine trace width. They wanted to know where we purchased it.

In reporting on the show, Howard told this story and finished with the comment, "May Tektronix never get so big that we don't know what all of our divisions are doing."

Deane E. Kidd New Product Introduction

No Compromise of Quality

In May 1981, Howard was shown a prototype of an automatic scope calibration system (eventually to become the systems in the 2400 line in C1). After the demonstration, the cabinet doors were removed to reveal the instrumentation inside. When he saw very few Tek products in the racks, we explained that tight system specifications had screened them out. To that, Howard replied, "I'm not disappointed. You should never select Tek gear as test equipment if, in doing so, it would compromise the quality of OUR product line."

> Bob Beville Portable Instruments Division Manufacturing

Long, Cold Trip

Howard was quite willing to help friends when necessary. This generosity was pursued quietly, even clandestinely, so that few others knew about it. This was fitting to Howard's rather modest personality; it also served to limit the number of requests for assistance. During the third year of Tek, when the business outlook became quite encouraging, some of the owners felt confident enough to buy new cars. Jack Murdock arranged to purchase a big black Buick Roadmaster in Detroit at a deep discount. As Howard was in the Detroit area on business, he agreed to drive the Buick out to Portland during an unusually cold January. When questioned about his long trip, Howard said, "The heater didn't work very well and I didn't have time to stop for repairs, so I bought a new overcoat to wear while driving. I figured I needed it anyway." Jack had the car serviced and discovered the thermostat had been stuck open for the entire sub-zero trip.

> Miles W. Tippery one of original co-founders

No Perks

I'll always remember Howard as a rather quiet, down-to-earth person. Never wanted to be called "Mr. Vollum," just "Howard." He never wanted his own parking spot, just anywhere in the parking lot was OK for him. One day in the 70s, I saw him out in the parking lot looking for his car. He had forgotten where he parked it.

He was just a super person who took time from his busy schedule to congratulate his employees on their 10th, 20th, and 25th anniversaries at Tek.

Harvey Gjesdal Mechanical Engineer

A Fast Learner

Late one afternoon, I found Larry Bowman walking down the hall in Building 50 looking very tired and dejected. I commented that he looked like he had been run through the wringer. His response was than in a sense he had. He had just been with Howard for a couple of hours talking about the IC facility we had in Building 50.

As the meeting opened, Howard was the student asking questions and learning about ICs. As he learned, he asked more in-depth questions and by the end of the session he was the teacher leading Larry into the intricacies of IC physics.

Larry said no one had ever learned so fast and with such a depth of understanding. Whereas he went in as the expert, Howard gleaned all the knowledge Larry had and then had him wondering if he understood IC physics at all.

> Deane E. Kidd New Product Introductions

Checking "Blue Lines"

My most unforgettable remembrance of Howard was in July of 1984. I was working in Corporate Public Relations, and had to deliver the "blue lines" of the upcoming Annual Report to Howard at his beach house, and go over them with him for any corrections or changes he suggested. He was a delight to work with for the two-plus hours it took to go over the report page by page, absolutely astounding me with the fine detail he corrected on technicalities in the text.

After finishing the report, Howard gave me a tour of their property, pointing out the different flowers they had planted, and telling me about the construction of their house. He left a lasting impression on me that day as a real human being, quiet, comfortable, and not at all the imposing figure his accomplishments and financial status would make him seem. I feel as though I was privileged to walk and talk with a very special man that day.

> Gail McCraw Corporate Public Relations

A Perceptive Individual

Since I am relatively new with Tektronix, I met Howard only once. He came to Laboratory Instruments Division to see the new 11K products. The experience was great. He quickly was able to grasp the usefulness of the products and immediately started to suggest enhancements, such as a voice interface, higher bandwidth, etc. He spent an entire afternoon talking with our engineers and using the 11K products. Our Engineering organization was impressed with his knowledge, perceptiveness, and warmth as an individual. We miss him.

> Frank Hermance General Manager, Laboratory Instruments Division

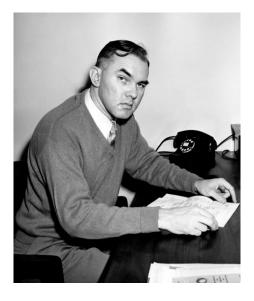
Beacon In The Night

I believe that on rare occasions in the course of human history, an individual is sent to live amongst us as a reminder of what we could be if only we would unleash the decency that lies within ourselves and if only we would reach for the greatness of the stars in the heavens. Such an individual serves us as a beacon in the night to reaffirm faith in our natural civility and compassion, our proclivity for good. I believe most sincerely that Howard was one of those uncommon individuals.

> Leonard Laster, M.D. Member, Board of Directors (excerpt from address at memorial service)



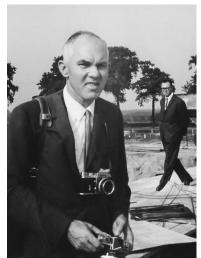


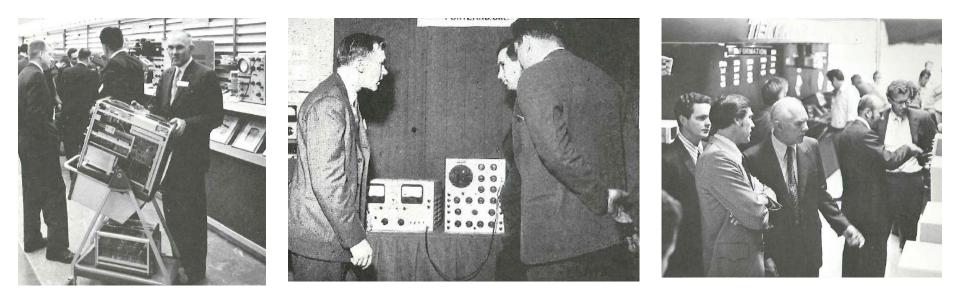


Vollum, Howard































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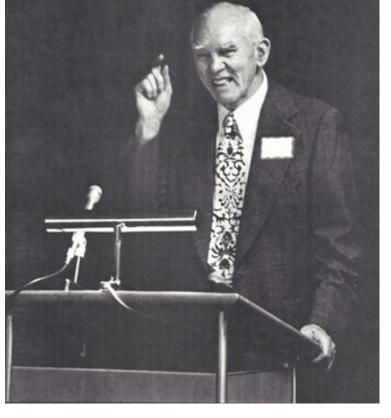
















Howard Vollum a man of quiet genius

