

CHAPTER 1: FROM INSTRUMENTS TO COMPUTERS

The Evolution of HP's Products, Services and Markets

For a better understanding of the challenges facing me in the Middle East as I began to build a customer service organization from square-one, it is necessary to briefly recap the evolution of HP's product offerings. From the perspective of customer service this evolution produced exponential growth in HP's maintenance business and the eventual need to establish multiple approaches for meeting the service needs of customers who had purchased a wide variety of new and sophisticated products.

FROM SMALL BEGINNINGS....."The Garage"

Every HP employee/retiree is familiar with the famous Packard "garage", the Silicon Valley landmark located on Addison Avenue in Palo Alto where H&P developed their first product, the Model 200A audio oscillator back in 1938. Their first order was from Walt Disney who was in the process of producing "Fantasia", a movie that required very unique sound effects that only the 200A could provide. The order was handled by a third party sales and marketing firm, Neely Enterprises,



H&P at the Birthplace of Silicon Valley



The HP 200A

located in Los Angeles. H&P were not only the

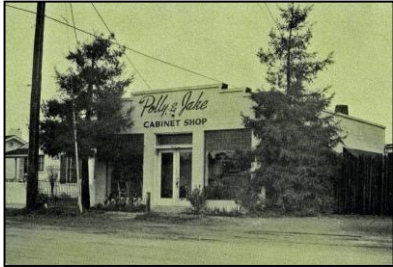
200A design and production engineers, they were also the service engineers responsible for resolving any technical issues associated with these new devices. It is therefore safe to assume that H&P were aware of the need for and the importance of customer service from day one. It was a necessity. It was simple common sense for them to conclude that even high quality products would eventually require maintenance and repair services.

As the sales volume and production of the 200A quickly grew beyond the capacity of the garage HP moved into a small shop (recently an AT&T store) that fronted on El Camino near the corner of Page Mill Road in Palo Alto. With the invention of radar technology during World War II HP expanded into the field of microwave generation and measurement equipment. Throughout the 1940's additional product lines were added resulting in another move, this time to the also famous "Redwood Building" at the corner of Ash Street and Page Mill Road. As HP's customer base grew so did the need for customer service. During this period HP's production test department was providing "after sale service".



Norm Neely and Crew (With Bob Boniface, future Executive V-P, on the Far Right)

The post war economic boom of the 1950's marked the beginning of the "electronic age" and along with the resulting growth in HP's business came the awareness that having production test engineers involved in customer service was increasingly detrimental to manufacturing productivity. So, in the late 1950's, to relieve production test of this responsibility, HP established a dedicated customer service organization under the direction of Carl Mahurin.



**El Camino and Page Mill Road – Home #2
Previously "Polly & Jakes", "Tinker Bell's", Etc.**



Art Fong & Hewlett (with coffee cup) Testing New Microwave Products

By this time the Redwood Building site had been expanded to an entire city block that also included new buildings, eventually named 7 and 8. HP's first Customer Service Center was founded in the basement of Building 8. This is where I joined them in 1966 following three years as a production test engineer at the Dymec Division, in Building 7C. Although I was still working on many of the same products, I was now a "bench service" engineer.

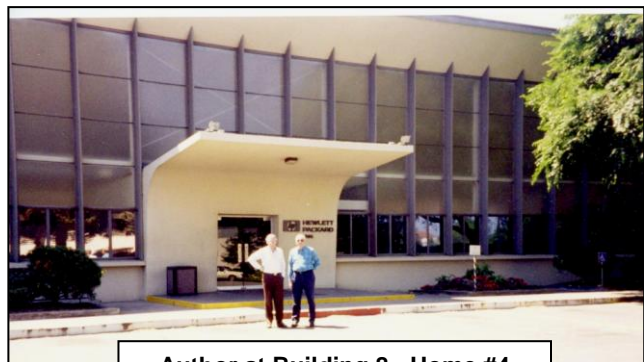


**"Redwood Building" - Home #3 at
Ash Street and Page Mill Road**

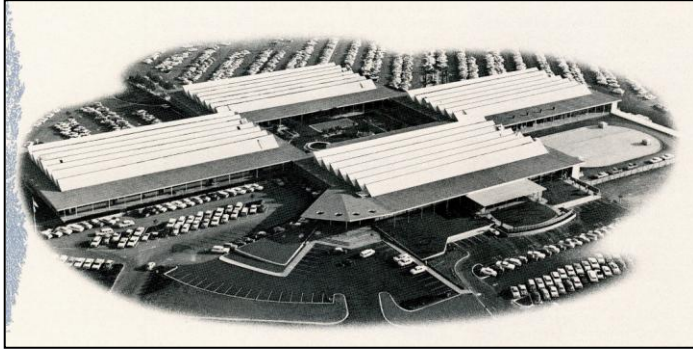


**The Redwood Building was
integrated into Building 7**

Up to this point in the company's evolution, providing customer service was simple and straightforward.....HP was an instrument company with a "bench repair" service strategy. A first level of service was provided by local HP sales offices and "representatives" with backup from regional service centers. However, as HP began to diversify its product offerings the service needs and expectations of customers became increasingly incompatible with the bench repair strategy. Along with these new products and customers came the need for "on-site" service (aka, "field service").



**Author at Building 8 - Home #4
395 Page Mill Road**



“The Hill” - Home #5 at 1501 Page Mill Road

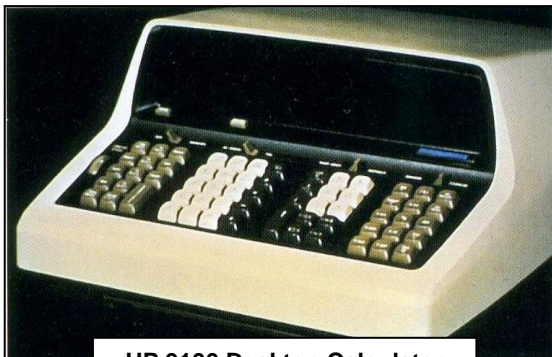
HP'S INTRODUCTION TO “FIELD SERVICE”

Product Diversification Creates A Challenging New World

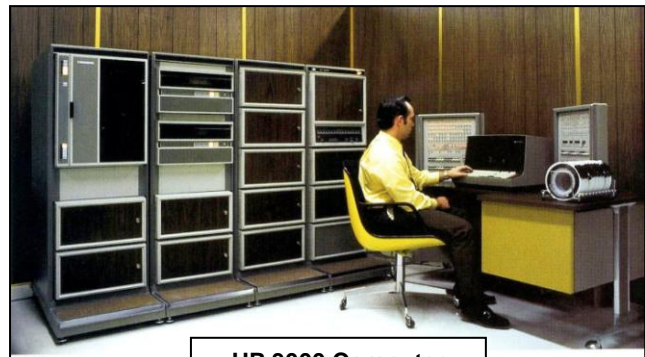
In the early 1960's HP expanded its product offerings through the acquisition of companies such as F&M Scientific and Sanborn, whose products provided measurement and monitoring capabilities to chemical and medical customers. More small companies, including Data Systems and Datamec, were purchased in the mid 1960's to develop “technical” computers (HP 2100 Series “mini” computers) and peripherals in an effort to automate instrumentation systems, such as process control and data acquisition systems at chemical plants, pulp and paper mills, oil refineries, etc. Desktop calculators joined the product line in the late 1960's and finally, in 1971, HP announced its first “commercial” computer system, the HP 3000.



HP 2116 Computer



HP 9100 Desktop Calculator



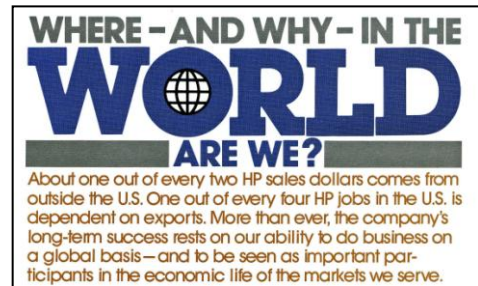
HP 3000 Computer

By entering new product markets HP was assured of continued growth. However, many of these new products were either too large to ship back to HP for maintenance or were running critical applications, which meant that the existing “bench service” model was no longer going to work. To meet more demanding customer expectations HP had to begin providing “field service.” Instead of recruiting introverted bench service engineers who wore jeans and hid in the basement of Building 8, HP had to begin hiring engineers who wore suits and had excellent “people skills”. These “customer engineers” would be required to “fix” the unhappy customer as well as the failed product. Fortunately for me, I was able to successfully make that transition. Looking back at my pre-HP life I realize that the years I spent working in a San Mateo Chevron gas station while in college taught me more about how to interface with a wide variety of customers than any training program ever could have.

TERRITORIAL EXPANSION.....HP Goes Worldwide

“We must steadily expand into new fields of measurement ...and new geographic areas”.
- David Packard

In addition to diversifying product offerings HP also began to expand geographically and it typically did so by buying out the third party “representative” companies that were already marketing and selling HP’s products. Domestically, HP bought several companies including Neely Enterprises and Crossley Associates to form four U.S. sales regions, as well as HP Canada Ltd (HPCL). The same approach was used internationally as HP moved into Europe and Asia.



To manage its international activities HP established headquarters operations in Palo Alto for HP Asia and Africa (HPAA), HP Inter-Americas (HPIA), and several other acronyms that regularly changed as the company reorganized to adjust for growth in these areas. These operations would eventually evolve into a single organization, the HP Intercontinental Sales Region (aka, ICON & Intercon). Markets that were not part of the U.S. or Europe became the responsibility of ICON. HP’s European Sales Region headquarters (HPSA), which is at the heart of my story, was established in Geneva, Switzerland in 1958. During my HP career I had an opportunity to work for all of these organizations, sometimes twice.

As backup to HP’s worldwide sales offices and “representatives”, the U.S. service centers in Building 8 and in Paramus, New Jersey, were supplemented by regional service centers in Switzerland (for Europe) and Japan (for Asia). CSC, the Customer Service Center (aka, The Western Service Center) in Palo Alto, was the best equipped and as such provided back up to the others, which was often necessary when servicing sophisticated low volume and specialized products, such as time standards, that required frequent calibration. Even some of these were beyond the capability of the CSC and had to be returned to their original manufacturing divisions, which at that time were close by in Palo Alto.

When field service was introduced it was initially provided out of the service centers and then expanded into HP field offices as sales volume increased and customer requests for quicker response times grew. However, many international “representatives” were not comfortable with this expansion. Providing a very basic level of bench service for electronic instrumentation products was simple, relatively inexpensive and customers were not too demanding. Providing field service for several new product lines was just the opposite.

GOOD BYE TO “NEXT BENCH” MARKETING.....HP Is The New Kid On The Block

The move into new product areas also required a shift in marketing strategy. As the world’s leading electronic test instrumentation manufacturer HP did not need to invest a lot time and money in marketing. HP products sold themselves. HP’s marketing strategy was known as “next bench”. As HP developed new instrumentation to test its own products it seemed reasonable to assume that many of HP’s instrumentation customers, such as General Instruments, Beckman and Tektronix, which were in the similar businesses, as well as other self-supporting customers, would be interested in buying these newly developed products. This was a different twist on the self-fulfilling prophecy. Simply put, we made these instruments for ourselves, but we can make some for you too.....the equipment used on HP’s workbenches would also be of value on our customers’ workbenches. This strategy worked fine for instrumentation products of which HP was the world’s premier supplier, but it would not work for other products, computers for example, and in markets where HP was not well known. As time passed not only would HP have to adapt to new geographies but it would also have to develop new strategies for breaking into unfamiliar product markets. These changes provided excellent career advancement opportunities for myself and for many of my peers. ■