

## NOTES

“A little cake . . .” *Tupperware!*, a film by Laurie Kahn-Leavitt, 2004.

## REFERENCES

Clarke, Alison . *Tupperware: The Promise of Plastic in 1950s America*, Smithsonian Institution Press, 1999.

*The Age*, *Australian Financial Review*, Bloomberg.com, *Boston Globe*, *BusinessWeek*, Canadian Review of Sociology and Anthropology, *Cincinnati Enquirer*, CNN, *Daily Objectivist*, *Evening Standard*, Everything2.com, *Financial Times*, *Fortune*, *The Guardian*, *Harvard University Gazette*, Hoover’s Company Reports, *The Independent*, *International Herald Tribune*, Inventors.About.com, *Journal of Women’s History*, *LA Weekly*, *Marketing Week*, Massachusetts Institute of Technology Engineering Department, *Metro Times* (Detroit), *Newsweek*, *New York Times*, *New Yorker*, *The Observer*, *Plastics News*, *Salon magazine*, *San Francisco Chronicle*, *Slate Magazine*, *The Sunday Age*, *Sydney Morning Herald*, *The Times*, Tupperware.com, *Washington Post*, *Washington Times*

## Apple

### A great idea is not always enough

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**D**EPENDING ON YOUR AGE, YOU MAY OR MAY NOT KNOW THAT long, long before Apple started selling iPod Shuffles, it was poised to become the most powerful computer manufacturer in the world. If history had been slightly different, that computer on your desk today would be an Apple rather than an anonymous box running Windows.

The Apple Macintosh computer changed the world. Before the Macintosh, computers were mathematical, complicated, and arcane. You had to learn lines of complicated commands just to make them work. The first Macintosh, launched in 1984, was intuitive and friendly. You turned it on and a little smiling face appeared. If you typed words in Times New Roman font, then that

was how they appeared on the screen, in black text on a white background—like paper. For the first time, a computer worked in a way that made sense.

Its advance over the competition, the IBM PC, was generational. Even Bill Gates recognized that as soon as he set eyes on the machine. The Macintosh soon commanded 20 percent of worldwide personal computer sales, and looked certain to set the new standard.

Except that Apple blew it.

Apple was founded in 1976 in California's Santa Clara Valley by Steve Wozniak and Steve Jobs, who met in 1973 in a mutual friend's garage. Wozniak, four years older than Jobs, had already graduated high school, but the pair seemed to click instantly.

Wozniak had been a technical whiz from childhood, when, unable to afford the parts, he designed computers in his head, drawing up plans for more than fifty variations by the time he graduated high school. Jobs, who made up for what he lacked in technical knowledge with an ability to hustle anything (secondhand computer chips, contraband, even, once he graduated, jobs at Hewlett-Packard and Atari). Wozniak attended Berkeley; Jobs attended Reed College in Portland, Oregon. The college had a counter-culture focus where he became a "fruitarian," studied eastern philosophy, and refused to bathe.

Wozniak got a good job with Hewlett-Packard; Jobs eventually finagled his way into a position at nearby Atari, the video game maker, which was where the pair made a game in their spare time called Breakout. They were also members of a computer club called Homebrew, which met in (where else?) a friend's garage. Homebrew had been formed after the invention of the first personal computer, the Altair, which was featured on the cover of *Popular Electronics* magazine in January 1975—the same magazine cover that prompted Bill Gates and Paul Allen to start Microsoft, creating software for the Altair.

Wozniak built his own computer, which he offered first to Hewlett-Packard. When they declined, he showed it instead to the Homebrew Club—and Jobs, who immediately saw enormous potential in a business partnership with Wozniak. They founded a little company in 1976 and called it Apple; Jobs was just twenty-one. Wozniak was twenty-six.

Jobs sold his VW van and Wozniak his treasured Hewlett-Packard programmable calculator to fund their first design, the Apple I. They launched it at the Homebrew computer club and sold them for \$666.66 per unit over ten months. Marketing manager Mike Markkula then invested \$250,000 to become an equal partner and chairman of Apple, which was incorporated in January 1977. Wozniak next built the Apple II, which had a revolutionary color screen and could play games. Launched in April 1977, it was enormously successful, selling 50,000 in twelve months (and in its ever-evolving forms would prove a cash cow for Apple until its demise in 1993, making it probably the longest-lived model of computer in history).

In December 1980, Apple went public, selling 4.6 million shares at \$22 each and creating enormous wealth for its founders: Jobs was worth \$100 million at age twenty-five; Wozniak bought a Porsche and a movie theater. Wozniak also developed a passion for flying, which led, in February 1981, to a crash in a light plane that left him with head injuries. It took him five years to recover.

Exactly how Jobs and Wozniak got the idea for the Macintosh has become shrouded in myth. The generally accepted version is that in December 1979 Jobs and a group of Apple engineers managed to barter their way into Xerox's Palo Alto Research Center in exchange for discounted Apple stocks. On their brief tour, they saw an experimental computer that used a mouse to negotiate a desktop composed of overlapping windows, with realistic black text. Xerox did not seem to recognize the potential of its own invention, but Jobs certainly did—and went on to build the Macintosh.

The reality of the Mac's birth was probably a little more complicated. Jobs did get a look at the Xerox machine, but it had not exactly been a secret up till then, with Xerox publicizing its use of display graphics and a mouse for several years. According to Michael S. Malone, who wrote the enormously detailed account of Apple's growth, *Infinite Loop: How the World's Most Insanely Great Computer Company Went Insane* (Aurum Press, 1999), it was a programmer named Jef Raskin who had first visited Xerox in the summer of 1973. He joined Apple in 1977 and, inspired by what he had seen at Xerox, lay the foundation for the Macintosh. (Raskin, according to Malone's account, also tried out an embryonic version of the Internet at Xerox.)

After a false start with a machine called the Lisa (a good product that was far too expensive, at \$12,000, for the small-business and home market Apple was aiming at), Apple launched the Macintosh in 1984 with an advertisement screened during the Superbowl football game. The ad, directed by *Blade Runner's* Ridley Scott and costing \$500,000, portrayed a woman running through an oppressive future world where a Big Brother figure controls a mindless crowd from a giant screen. She throws a hammer at the screen, white light blinds the crowd, and the new Macintosh is introduced—easily understood symbolism that suggested freedom from the oppressive institution of the IBM PC.

As a brand and as a philosophy, Apple had arrived. Its product was indeed, in the words of Steve Jobs, “insanely great.” And Jobs himself, always a charismatic entrepreneur, now assumed God-like status in the computer industry.

But some of his decisions were questionable. He specified that the Macintosh should launch with far less memory than it actually needed to work well, and it had no hard disk, which meant users were forever swapping floppy discs in and out. Under-powered and not as cheap as many had hoped (\$2,495 at launch, \$4,000 for a beefed-up version released later), it was seen by some as a novelty

compared to the dull but ever-evolving IBM-family competitors and did not catch on with businesses.

As a company, Apple was in transition. Apple workers (literally) planted a pirate flag atop the headquarters to signify their rebellion from the corporate hegemony—a spirit of revolt that was to undermine the company’s strategy for growth. Steve Wozniak lost interest in the ever-growing Apple and, while maintaining links with Jobs, left to become a computer teacher in February 1985.

Jobs then left Apple in September 1985 after repeated clashes with Mike Markkula and CEO John Sculley (who had come in from Pepsi-Cola), showing a mercurial side to his personality that created dissent and bitterness, in contrast to his usual winning charm. He went on to start another computer company called NeXT Software.

Without Jobs, his idealism, perfectionism, and charisma so strong it was described as a “reality distortion field,” Apple floundered, torn between the commercial demands of growth and the idealism that still endured among the engineers. And IBM did not just disappear. Quite the contrary: because IBM’s machines were made from readily available parts, there were suddenly numerous copycat versions—“clones”—on the market. Most used Microsoft’s MS-DOS operating system, licensed to them by Bill Gates’ fledgling company. Apple, conversely, chose to jealously guard its secrets, sealing cases of new Macintoshes closed with screws that required a special Apple tool to open them. Apple wanted to make everything in-house—hardware, operating system, even software.

In 1985, Bill Gates had offered to help Apple license its technology, sending the company a memo; Gates was interested in forming an alliance that would benefit both companies. Time and again the board met to consider licensing their technology, only to drown in internal politics. So the deal with Microsoft did not go ahead.

Apple’s market share dropped from 20 percent in 1987 to less than 4 percent in 1997. Along the way, there had been opportunities

to sell the business to Sun Microsystems, or to partner up with newcomers such as Sony. But the Apple board could not bring itself to relinquish its independence.

Microsoft launched Windows, its clunky but increasingly refined version of the point-and-click user interface. Apple attempted a legal challenge that eventually failed. Meanwhile, Apple suffered numerous production glitches, including a particular Powerbook laptop that had a tendency to catch fire. The Apple Newton personal digital assistant, chairman Sculley's big hope in 1993, flopped. True believers kept the faith, but converts were few and far between. In 1997, Apple made a loss of \$1 billion.

After a succession of CEOs, Apple called once more on Steve Jobs, who had been engaged with making the animation studio Pixar a huge success (eventually bringing Jobs some \$1 billion in share holdings) and trying to make a new company called NeXT Software fly (not so successful). In 1996, Apple bought NeXT for \$400 million, which got them a new operating system that Jobs's team had designed, and the services of Jobs as an advisor, working half a day a week. The industry was abuzz with rumors Jobs wanted his old job back—which he denied. “People keep trying to suck me in,” Jobs told *BusinessWeek* in March, 1997. “They want me to be some kind of Superman. But I have no desire to run Apple Computer. I deny it at every turn, but nobody believes me.” Funny, then, that in September 1997 Jobs took the helm at Apple as “interim CEO” (on the now-legendary salary of \$1) and set about redefining the company. At NeXT Software he had brought together a team of visionaries, five of whom came across to Apple with him, including Jonathan Ive (industrial design), Avie Tevanian (software), and Jon Rubenstein (hardware).

His first major public appearance as Apple's returning founder was at the Boston MacWorld Expo in August 1997. It was quite an occasion: in his keynote speech, Jobs brought up none other than Bill Gates on the big screen. While some in the crowd gasped and booed, Jobs told the gathering: “We have to let go of the notion that

for Apple to win, Microsoft needs to lose. The era of competition between Microsoft and Apple is over, as far as I'm concerned."

Jobs whittled the existing product line down to just three computers, turning around 1996's first-quarter loss of \$740 million to a profit of \$30 million in the third quarter. Jobs made an alliance with Microsoft which included Microsoft making Mac versions of its software and with his new team he set to work on a new range. Jobs's first product was the iMac, a contemporary version of the original Macintosh. It may not have been technologically advanced, but it looked like no other computer, a one-piece design that combined screen and processor inside a candy-colored, translucent, organic-shaped shell. It was pitched as an Internet connection and entertainment device. Once again, Jobs had managed to turn a commodity into a must-have object and sales surged, bringing Apple into a profit of \$601 million in 1999, though profits ebbed back to \$65 million in 2002 as buyer enthusiasm for the new-look Apple once again gave way to the realities of the PC-dominated market.

Jobs pursued the entertainment-portal vision with the flat-panel version of the iMac (which offered buyers a then-revolutionary DVD burner), widescreen laptops, and—the biggest hit of all—the iPod personal music player.

Jobs had initially developed the music software iTunes, which made managing a database of tracks easier, then realized what it needed was a portable player to go with it. Nine months later, in a crash program reminiscent to the development of Sony's first Walkman, they unveiled the iPod in November 2001. Some criticized the price—\$399 for the entry-level model—but its good looks and user-friendly design gave it "must-have" appeal. A hit with early adopters, it went mass market in 2003 when it was the essential Christmas gift, creating a world of "poddies" who downloaded their entire record collections onto the MP3 player's hard drive. By 2005 the iPod had some 33 percent of the total world market for MP3 digital music players by units sold and 51 percent by dollar

value. In the first quarter of 2004, sales of iPods were up 900 percent on the same period a year earlier; Apple has now sold an estimated thirty-seven million iPods.

The entertainment crossover, particularly with Apple's iTunes Internet music service—the first music downloading service acceptable to both fans and artists alike—has proved so successful some analysts believe Apple will eventually redefine itself as a consumer electronics firm.

In June 2003, Apple finally appeared to have closed the price-technology gap in personal computers when Jobs launched the G5 range, stunningly fast machines that came in beautiful aluminum cases created by Jonathan Ive. But hardware is no longer the main game: what Jobs calls “digital lifestyle” is now Apple's modus operandi, covering music, digital pictures, and home video, integrated into a suite of complementary “i” programs including iMovie, iTunes, iPhoto, iDVD, and GarageBand, a digital music synthesizer; all of them easy to use. Significantly, Jobs offered versions of iPod and iTunes for Windows.

Apple is unlikely to ever have another shot at world domination but at least now it is again the best in the world at what it does: innovation.

## NOTES

“**People keep trying to suck me in . . .**” Burrows, Peter. “Apple: What Is Steve Jobs Up To,” *BusinessWeek*, 3.17.97.

## REFERENCES

ABC News, *Apple: The Inside Story of Intrigue, Egomania, and Business Blunders*, by Jim Carlton, Crown Business, 1997.

Amelio, Gil, *On the Firing Line: My 500 Days at Apple*, HarperBusiness 1998.

Deutschman, Alan, *The Second Coming of Steve Jobs*, Broadway, 2001.

BBC, *Business 2.0*, *BusinessWeek*, *Cnet*, *Forbes*, *Freerepublic.com*, *The Guardian*, *Inventors.com*, *The Los Angeles Times*, *New Statesman*, *Salon.com*, *Stanford Library Interviews*, *Time*, *Wired*