APPLE:
THE FIRST TEN YEARS

Technology has been one driving force in Apple's history, the people who inspired, innovated, or tamed the corporation have been another.

In January, Apple Computer, Inc., celebrated its tenth birthday and Apple co-founder Steve Wozniak reflected on the ten years in the pages of A+ in that issue, we also traced the history of Apple's computers and code names. In this month's second of two parts honoring Apple's first decade, we look at the people who made Apple so successful and present a ten-year timeline, and an Apple executive gives us a glimpse at the next ten years.

Technology has been one driving force in Apple's history; people have been another. The chaos generated by the dozens of revisions to basic Apple products probably would have put most firms out of business. The reason Apple hasn't succumbed to what personal-computer pioneer Adam Osborne likes to call hypergrowth, however, has to do with people. The two Steves, of course, have been appropriately labeled by the press as being the renegades, the creators of the Apple chaos. Both of them were always pushing at the very things that made the company successful. Steve Jobs, for instance, disrupted the company with his pirate's flag over the Macintosh building, basically pooh-poohing the Lisa at the same time that he, as CEO, was touting its technical elegance to the world. Woz, meanwhile, kept saying that the Apple II could be better, even as the company tried to shift resources first to the III, then to the Lisa, then to the Macintosh. Both Steves had their followers, and both made a lot of noise in support of their causes.

So how did the company survive? After all, with product infighting going on at the level it was at Apple, many companies would have performed about as well as a sailboat with no one at the tiller.

In the beginning it was people such as Mike Scott and Mike Markkula who stabilized Apple. Scott, who was Apple's president in the early days, was the only man who could yell loud enough to be heard over the noise the two Steves generated; Markkula, who has been chairman and president and is now Apple's vice chairman, was the quiet organizer. Both were good at attending to details, but others were instrumental as well.

The attitude inside Apple was typical of that of most Silicon Valley start-ups: If you think you can do it, give it a try. People were encouraged to do their best work. Chris Espinosa, at an age at which many people struggle to write book reports, helped turn out manuals that were understandable and fun. Randy Wigginton took software routines that Woz wrote, spruced them up, and added nifty details. Fred Hoar did a good job of explaining to the press what Apple was up to and defusing the controversial things that either of the two Steves might say in too-candid situations. And in the middle of it all, a few new geniuses were sprouting, simply because they got the opportunity to try.

If Raskin, for instance, wrote the original specifications of the machine that eventually became the Macintosh. If you talk to Raskin today, he'll tell you about "information appliances," and perhaps that's what the original Mac was supposed to be. No one can agree where he lost control of his concept, but even a short talk with Raskin will convince you that many of the underlying ideas behind the Macintosh were Raskin's and were amplified by Jobs' eventual opinionated leadership of the group.

The Lisa software, in which the Macintosh's has its roots, clearly shows the leadership of John Couch, a teddy bear of a man who, when excited by something, could get even the most blasé person enthused. With Couch coaching the Lisa software team, it kept improving its early ideas until they became Apple's and ceased being mere imitations of the Xerox Star software, from which many of the underlying concepts
Apple's basic philosophy has remained intact, despite the apparent migration of key people.

Apple with his Next computer. Hertzfeld is still writing software and allowing Apple first crack at it, with the option to publish it himself if he thinks Apple doesn't do a good enough job.

To be sure, Apple is not quite the same company it once was, but one look at the firm shows you that it is continuing to do the same thing it has done over and over in its history: make its existing products better. The Macintosh, already released in five different versions, seems destined to come out in at least two others in the near future (the so-called open-Mac and flat-Mac versions). Indeed, if history repeats itself, Apple will freeze the basic Macintosh hardware and core software into a single chip or set of chips for the next round, with additional chips adding new functions to the basic product.

The ImageWriter and LaserWriter printers have already gone through two revisions apiece, and it appears that both of them will go through at least one more. The 20-megabyte hard-disk drive has seen two iterations in a year. The mouse has had at least three distinct versions.

So, in examining Apple's first ten years, we see the seeds for a successful second decade. No doubt there will be an Apple IV some day, and when it proves to be not quite what the marketplace needs, it will become the Apple IV Plus, or IV Enhanced, or 4.5, or some other name—the same basic machine with a new set of features. And when the base Apple IV machine is figured out, its design will be frozen in stone (actually silicon), and the basic features will remain the same, as Apple adds new and clever enhancements to keep the product up to date. Because that's the way the Apple bounces: up a little higher each time.

Thom Hogan has owned five Apples in the last ten years and will probably own future Apples as well. Best known for his book The CP/M User Guide (which accompanies the Microsoft SoftCard), he has also served as editor of InfoWorld and Business Software and as director of software at Osborne Computer. These days you can find him sitting beside the pool, busily writing with his laptop computer, which he wishes were an Apple. He lives in Cupertino, California.
**HISTORY**

**BACK IN TIME**

**Apple's ten-year anniversary**

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<th>1976</th>
<th>1979</th>
<th>MAY 1980</th>
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| **JULY 1976**
Jobs and Woz deliver first Apple I computers to computer stores | **JUNE 1979**
Introduction of Apple II Plus | Apple rents Disneyland for a night during the National Computer Conference |
| **SEPTEMBER 1979**
Apple sells 35,100 computers in fiscal 1979 | **SEPTEMBER 1980**
Apple sells 78,100 computers in fiscal 1980 |
| **MAY 1980**
Macintosh project formally begins | **DECEMBER 1980**
Apple's initial public stock offering |

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<th>1977</th>
<th>1981</th>
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| **JANUARY 1977**
Apple incorporates | **FEBRUARY 1981**
"Black Wednesday": 40 employees are laid off |
| **APRIL 1977**
Apple II introduced at the first West Coast Computer Faire | Woz, injured in plane crash, begins a leave of absence |
| **MAY 1977**
First Apple II boards ship | **MARCH 1981**
Apple reorganizes; Markkula becomes president and chief executive, replacing Mike Scott, who becomes vice chairman; Jobs becomes chairman of the board; First million-dollar shipping day |
| **OCTOBER 1979**
First Apple II systems ship | **JULY 1981**
Mike Scott leaves Apple |

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<th>1978</th>
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| **JUNE 1978**
Introduction of Disk II | **AUGUST 1981**
IBM introduces its Personal Computer |
| **SEPTEMBER 1978**
Apple sells 7600 computers in fiscal 1978 | **SEPTEMBER 1981**
Apple sells nearly 180,000 computers in fiscal 1981 |
| **MAY 1980**
Introduction of the Apple III | **NOVEMBER 1981**
Introduction of ProFile, a five-megabyte hard disk drive for the Apple III |
| **DECEMBER 1981**
Apple III reintroduced after solution of technical problems | **MAY 1983**
"Kids Can't Wait" (a program in which Apple donates 9000 computers to California public schools) begins |

**1982**

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<th>FEBRUARY 1982</th>
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<td>Jobs appears on the cover of <em>Time</em> magazine</td>
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| **MARCH 1982**
Apple announces it will take legal action against Asian clone makers |
| **MAY 1982**
Apple sues Franklin Computer Corporation for patent and copyright infringement |
| **SEPTEMBER 1982**
Woz holds first US Festival "For competitive reasons," Apple stops announcing to the public how many systems it sells per year |

**1983**

| **JANUARY 1983**
Lisa and Apple IIe announced | **AUGUST 1983**
Apple introduces its Personal Computer |

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history has been an eventful one. Here are some highlights:

**MAY 1983**
John Sculley joins Apple as president and chief executive; Markkula becomes vice chairman

**APRIL 1984**
Introduction of the Apple IIc

**JUNE 1983**
Millionth Apple II produced
Introduction of ProDOS

**JULY 1983**
Woz returns to Apple

**SEPTEMBER 1983**
Osborne Computer Corporation files for bankruptcy

**DECEMBER 1983**
Introduction of ImageWriter and Apple III Plus

**1984**

**JANUARY 1984**
Introduction of the Macintosh; the Lisa becomes the Lisa 2
Apple and Franklin settle out of court

**NOVEMBER 1984**
Apple buys all ad pages in election issue of Newsweek
Two millionth Apple II sold

**1985**

**APRIL 1985**
Introduction of LaserWriter and AppleTalk, components of the soon-to-be-abandoned Macintosh Office concept

**JANUARY 1985**
Jobs resigns as chairman to start a new company, Next Inc.—Several Apple employees resign from Apple to join him

**FEBRUARY 1985**
Woz leaves to start a new company, CL9
Woz and Jobs receive National Technology Medal from President Reagan

**MARCH 1985**
Introduction of enhanced Apple IIe

**SEPTEMBER 1985**
Apple terminates its business in South Africa

**OCTOBER 1985**
Introduction of several add-on products for the Apple IIe, such as the UniDisk 3.5, Memory Expansion Card, and Catalyst, as well as a 20-megabyte hard disk for the Macintosh

**1986**

**JANUARY 1986**
Introduction of the Mac Plus
Sculley becomes chairman

**FEBRUARY 1986**
Jobs sells all but one share of his Apple stock, making Markkula the largest shareholder

**MAY 1985**
Apple reorganizes and brings Apple II and Macintosh product groups together—Jobs ousted from day-to-day management

**JUNE 1985**
Apple lays off 1200 employees and records a loss of $40 million, its first and only quarterly loss as a public company

**SEPTEMBER 1986**
Introduction of the Lisa
THE NEXT DECADE:
AN INSIDER'S VIEW

In May 1985, Jean-Louis Gassée arrived at Apple Computer's Cupertino, California, headquarters from Apple France, where he had been general manager. His arrival was just before the tumultuous reorganization that stripped Steve Jobs of his managerial duties and led to plant closures and massive layoffs. Following these upheavals, Gassée found himself in charge of the newly combined Macintosh and Apple II groups. As Apple's vice president of product development, he's responsible for peering into the future and guiding the direction of Apple technology. Here Gassée offers his thoughts on the next ten years. Although he discusses personal computers in general, we can bet that some of these visions will show up in Apple's own products.

Ask a fish to describe water. That's one of my problems in discussing the future of the personal-computer industry. The other problem is that I remember the rather firm opinions I held in the past, many of which have changed over time.

At the risk of presenting an excessively Applecentric perspective and with the memories of my less-than-insightful pronouncements, let me share with you my thoughts and hopes for the next ten years of the personal-computer industry.

The foremost consideration is how fast the industry will continue to progress. Contrary to a commonly held belief, I see the industry changing faster in the next ten years than it did in the past decade. More technology is ready, or being readied, for adaptation to personal-computer systems than ever in the past. Look at silicon, output devices, system software, storage devices, and networking, and consider the experience we have—scars and all—and you will share...
my conviction that we are at the knee, not the shoulder, of the S-curve.

The automobile industry provides a parallel. Our cars have seen more technical improvements in the past ten years than they did in the previous decade—in braking systems, suspensions, engines, electronics, and overall reliability.

In the coming years, we will continue to see improvements in the speed of processors, capacity of RAMs and magnetic storage, and quality of display devices. It is, therefore, tempting to stick a "more of the same" label on our future. In a misleading way, that is correct. Personal computers are and will remain simulation engines. Personal computers are and will continue to be intellectual power tools, tools to help us think, organize, communicate, learn, and play. What will change is the "how" more than the "what."

Aided by all of the improvements in silicon, magnetic, optical, and system-software technology, the major change in the "how" will be networking, and it will probably usher in the second age of personal computing.

The way we network personal computers today is offensively complex and expensive. Of course, we can, in theory, connect most personal computers to most sources of electronic information. Each time we want to tap into another source, however, the wires, protocols, data structures, and user interfaces change—a forbidding proposition for anyone but the most technically inclined and affluent users.

The next two or three years will bring hardware and software devices designed to bury the inconsistencies in networks and to make access as convenient as possible.

However well executed future networks are, the camouflage of inconsistencies will place some burden on us, in terms of cost and performance.

The ISDN (Integrated Services Digital Network) standard will probably make networking, as we know it now, "sound" as primitive as LPs compared to CDs. This standard will make possible a combined voice and data line in your office or home with about 20 times the throughput we enjoy with today's 2400-bps modems. Imagine that this data link is as standard as the RJ-11 (telephone jack) plug is today.

Imagine how the user interfaces will be influenced by the ability to quickly redraw a screen rather than wait for each character's placement on the screen. A two-minute program download will take less than five seconds.

Don't hold your breath for faster and newer applications enabled by the ISDN standard, though. We will need many years for the installation of this data-free way system, but it will be worth the wait.

Besides better roads to sources of information, we will have another access to large volumes of stored knowledge: standard media, whether read-only, in the case of CD-ROMs, or read/write or write once read many (WORM), in the case of magnetic optical devices.

What will change personal computing is the way we will navigate these seas of data, either local or remote. The next ten years will see an evolution in the way we interact with large quantities of data.

Real people don't use SQL, a language for querying mainframe databases. What we want is personal-computing tools that help answer questions we did not know how to ask or that we should ask. What we want—and what we'll get—is a set of navigational tools that follow more closely our natural free-association thought processes. The way we use hand movements and graphics to supplement keyboard input and text is a good start. Bill Atkinson, the author of MacPaint, will soon offer us a
brilliant example.

The next ten years will see advances in user interfaces giving us the power to naturally utilize huge libraries rather than fighting with the "front ends" of remote on-line database providers such as Nexis or Dialog. Some of these advances will come from the work on expert systems. Ten years from now, our personal computers will have enough speed, memory, and system software to host "agents" silently collecting and preparing data for us as we work or sleep.

As I think of the shape of things to come, I can't help but mention that, in 1997, and probably much before, we will notice the absence of these machines in the same way we now notice the absence of a telephone.

Some of our computers will be much more compact than they are today. We will carry them around, we will write on them—not type—and they will keep in touch with the rest of the world through a cellular modem or an infrared link with the nearest telephone plug. I can't wait.

I remember the first computer store in Paris, I remember my first copies of Creative Computing, and the Altair kit ads, and the Haiku generators.

The journey will continue to be rewarding.  

Jean-Louis Gassée