

## TECHNOLOGY

# Museum charts evolution

22,000 artifacts help preserve industry legacy

CONNIE GUGLIELMO  
BLOOMBERG

Mountain View, Calif., will soon offer technology enthusiasts something they can't see anywhere else: an original copy of **Apple Inc.**'s first business plan.

There's also a prototype for an Apple computer code-named Cadillac that never made it to market, a 1982 Commodore 64, and wooden wagon wheels that once graced a bar popular among Silicon Valley engineers.

The objects are among 22,000 housed in the Computer History Museum, whose mission is to chart the evolution of computer technology. The museum, in a two-storey former headquarters of Silicon Graphics Inc. on Highway 101, is backed by pioneers including Steve Wozniak, who co-founded Apple with Steve Jobs.

"The old machines represent where we, those of us in the computer field, came from," said Wozniak, 57. "They tell a story of amazing inventions even when the inventors had no idea what it would lead to."

Wozniak said he plans to donate his most valuable artifact, a 150-page notebook with his handwritten code for the Apple II computer. He and other tech luminaries are giving money as well to help preserve the legacy of their young industry that revolutionized the world.

The Bill & Melinda Gates Foundation, former Netscape Communications Corp. technology chief Eric Hahn each donated at least \$10 million, as did Palm Inc. co-founder Donna Dubinsky and her husband, Len Shustek. Other contributors include eBay Inc. founder Pierre Omidyar and venture capitalist John Doerr, an early backer of Google Inc.

The museum displays some of the earliest personal computers, including an Apple I and Inter-



Herald Archive, Bloomberg  
Apple Inc. co-founder Steve Wozniak, right, talks about a 150-page notebook with his handwritten code for the Apple II computer with Dag Spicer, senior curator of the Computer History Museum. The museum will soon display an original copy of Apple Inc.'s first business plan.

national Business Machine Corp.'s failed PC Junior. It has an Altair 8800 from Micro Instrumentation & Telemetry Systems, the machine that inspired Gates and Paul Allen to write the software that led to their founding of Microsoft Corp. in 1975.

Reaching back further, there is a 1935 Enigma machine used by the Nazis to encrypt messages during Second World War and one of the 40 panels that made up the Electronic Numerical Integrator and Computer. The 1946 Eniac, the first programmable digital computer, ran calculations for the hydrogen bomb and operated until 1955, when it was struck by lightning.

Some donors must be convinced that equipment and ephemera such as manuals, software and sales brochures are worth saving. In August 2006, curators raced to a warehouse in a small German village to rescue forerunners of modern comput-



Herald Archive, Bloomberg  
A 1935 Enigma machine, used by Germans to encrypt messages during the Second World War, on display at the museum.

ers that were destined for the dump.

"People don't view it as historic because it's all happened in the past 50 years," said Dubinsky, a member of the museum's board. "We have this incredible opportunity to collect things to-

day to help future scholars understand what happened — why it was important — and we can do it while many of the protagonists are still around."

Dubinsky donated an early Palm Pilot designed by the handheld computer company



# of computer



Herald Archive, Bloomberg

**The Computer History Museum has accumulated more than 22,000 objects over the past three decades for its collection.**

she started in 1992. She persuaded venture capitalist Mike Markkula, who backed Cupertino, Calif.-based Apple, to contribute his copies of the computer maker's original business plan. Those papers will eventually be available for public viewing, said Shustek, chairman of the museum's board.

Google founders Sergey Brin and Larry Page donated one of the first computers used to power their Internet search engine. A cabinet of calculators displays Hewlett-Packard's HP 35, the first handheld machine to perform trigonometric functions. The device made the slide rule obsolete, Hewlett-Packard says.

"Every object is pregnant with politics and meaning far beyond the technical," said Dag Spicer, senior curator.

The museum grew out of the personal collection of Gordon Bell, a Microsoft senior researcher, and his wife Gwen. It was displayed in Boston starting in 1979 before a plan emerged to create a non-profit centre in California.

In 2002, the group bought a building down the road from Microsoft's California campus and Google's headquarters in the heart of Silicon Valley, 56 kilometres south of San Francisco. The museum, which opened in 2003, attracted more than 40,000 visitors last year and has a \$4.1 million annual budget.

"These machines are works of art," said Allen Rosenzweig, an engineer and volunteer docent who gives 90-minute tours of 600 items on exhibit. He pointed to a row of Cray Inc. supercomputers, once the most expensive in the world, and said, "They're worth preserving."

Spicer and four curators meet Tuesdays to review potential additions to the collection of 15 million documents, 5,000 videos and films, 5,000 software programs and 20,000 photographs. The Smithsonian Institution, in comparison, has about 3,000 objects in its computer collection, said David Allison, a curator at the Washington-based organization.

The rescue mission last year in Castrop-Rauxel, Germany, netted a rare 1920s fax machine and one-of-a-kind mechanical banking machines created by German makers who were banned from using more advanced technology after the Second World War, Spicer said.

The museum is working on an exhibit of 1,000 objects that will show a timeline of computing history. It's also collecting oral histories with visionaries such as Internet pioneer Vint Cerf.

"The artifacts themselves are merely props," said Netscape's Hahn, who plans to donate documents from Arpanet, the government network that was the precursor to the Internet. "What we're saving are the fascinating stories behind the artifacts."