

TRAVEL

The PC Revolution, on exhibit

By R. Thomas Berner
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Nothing like a pop quiz to get you started.

ENIAC is to Philadelphia as Microsoft is to _____?

First, for those not retired and collecting Social Security and therefore not old enough to remember, ENIAC — Electronic Numerical Integrator and Computer — is considered the first modern computer. It was born at the University of Pennsylvania in Philadelphia in 1946.

And everyone knows what Microsoft is and that it's headquartered in the suburbs of Seattle.

The answer, though, is not Seattle or its suburbs, but Albuquerque.

That's right. Microsoft was born in New Mexico.

Microsoft began as Micro-Soft in Albuquerque in 1975 when Paul Allen and Bill Gates developed software for the Altair 8800, which was a do-it-yourself computer kit that sold for \$397. The Allen-Gates software passed its first test, adding 2 plus 2.

Then it crashed.

Eventually, though, they worked out the bugs. In 1977, Gates and Allen created a partnership and in 1979 moved Microsoft to Washington state, where they were born and grew up. (In their first business venture at the ages of 16 and 19, they analyzed traffic statistics. They called the company Traf-O-Data.)

Allen has not forgotten his computer roots, which can now be seen in a 4,000-square-foot gallery at the New Mexico Museum of Natural History and Science in Albuquerque. Dedicated to the history of the microcomputer, the exhibit, funded by Allen with additional support from the Bill and Melinda Gates Foundation and the New Mexico Museum of Natural History Foundation, opened Saturday. The six-part exhibit is called "STARTUP: Albuquerque and the Personal Computer Revolution."

In the same building as the newly renovated Jurassic Hall, where you can explore the geography, history, technology and mystery of ancient Egypt; see photographs of Antarctica; and meet Seismosaurus, the world's longest dinosaur; you can also learn about the origins of the microcomputer.

How you react to the computer exhibit depends on your age. If you were born around the time of ENIAC (I'm two years older), a stroll through the gallery is nostalgic, and the nostalgia hits the ear immediately upon entering the first room and hearing the voice of CBS News anchor Walter Cronkite, who retired in 1981, talking about IBM. Then the nostalgia



A cardboard cutout of the founders of Micro-Soft, established in Albuquerque in 1975. Bill Gates is in the front row at left. The company changed its name to the more familiar, unhyphenated version when it moved to Seattle in 1979.

Courtesy photo

becomes visual, when you look up and see Cronkite on a monitor in black and white.

In fact, many photographs in the exhibit from those early years are black and white, including one of Allen and Gates.

Other nostalgic touches include an exhibit of vacuum tubes and another of transistors. I asked a 26-year-old woman staring at the vacuum tubes if she knew what they were. She did not. A 40ish travel writer replied: "Weren't they in radios?"

"And television sets," I added.

We were standing next to a display of transistors and an early portable radio, dated December 1954. I was 10 at the time, and the travel writer hadn't been born yet, so that explained the half-right answer on vacuum tubes. I decided not to ask about dot-matrix printers, even though they're somewhat postmodern.

One of the exhibit's strong points is that it provides context for the rise of the microcomputer, which is good for those born after 1975 who know about e-mail, the World Wide Web and instant messaging but have no clue about the primordial computer life that preceded them — the tubes and switches from which the modern home computer arose. (ENIAC had 18,000 tubes and 6,000 switches.) The exhibit provides that context and much is made of related devices such as calculators and telemetry.

That's because calculators and telemetry were two of the products the Micro Instrumentation Telemetry Systems of

Albuquerque produced in the 1960s. But the company could not compete against larger companies and looked for other products. Thus was born the Altair 8800, which sits in the center of one exhibit room encased in glass.

It is a blue box with lights on the front. The Altair 8800 had no keyboard, no mouse, no floppy drive, no webcam, no monitor. No doubt young people will be puzzled. That's a computer? they'll wonder.

Eventually, though, the exhibit shows the evolution of the microcomputer to what we know today. Why, despite its mostly Microsoft-derived funding, the exhibit includes a couple of Macintoshes and kind words about Apple.

Appropriately, visitors have many opportunities to interact with computers. There's the Pizza Run, which allows you to design a modest program getting you to a pizza store. You have 10 minutes to enter 16 lines of code before you must run the program. No doubt underlying those 16 lines are probably a thousand lines each, demonstrating just how much is "hidden" from the average user today.

In another exhibit, you may watch a movie titled *Rise of the Machines*. In yet another, you may record a personal video that is then shown on a large screen, and you may send an e-card with your picture on it.

On the day I was there on a press

tour, several of the interactive exhibits were not working correctly because of software glitches, and it brought to mind E.B. White's essay about the problems he encountered at the 1939 World's Fair, whose theme was The Future, but was working pretty much like any other day.

That's when I realized something was missing from the exhibit — CONTROL ALT DELETE, the command that reboots a computer when a problem arises. I also didn't see any smiley-face emoticons, so insert your own right here.

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If you go

The New Mexico Museum of Natural History and Science is at 1801 Mountain Road NW in Albuquerque. Take Interstate 25 south to Interstate 40 west, exiting at Rio Grande Boulevard (the exit for Old Town). Turn left on Rio Grande and proceed a short distance to Mountain. Turn left, and the museum is just up the street. There's plenty of parking. The museum is open daily from 9 a.m. to 5 p.m. except Thanksgiving, Christmas and nonholiday Mondays in September and January. Admission fees are: adults, \$7; seniors, \$6; children 3-12, \$4. The museum is accessible to all visitors.