Acorn angst

Simon Collin bought an Acorn Electron — but then wished he'd bought a BBC Micro instead.

Like the majority of the computing world, I am tied to a PC desktop. There is nothing wrong with this, but sometimes you forget about the other platforms. Last week, I tested out one of the latest, greatest Acorn computers: its RISC processor flew through complex graphics applications with impressive ease. Seeing the little green acorn logo reminded me of my own Acorn, bought in the early eighties when I was young and impressionable.

Acorn started off in the public arena with its Atom computer. This neat little machine came either in kit form or pre-assembled and had a similar target audience to the Sinclair range (the ZX80 and ZX81, in particular). It was powered by a 6502 processor running at 1MHz and had 2Kb of RAM fitted as standard, along with text and graphics display modes and a sound channel. I didn't buy an Atom. Instead, I went with the pack and picked a ZX80. At the time, the personal computer world was split down the middle by the choice of processor in the box. This mattered, because you had to program the unit in Assembler — it took me months to get any new program to run properly! The two main processors were the 6502 from Motorola and the Z80 from Zilog. I preferred the Z80 architecture, and always considered the 6502 a difficult brute with which to design and program.

Acorn launched a new computer to coincide with a TV series that explained how computers worked. The 6502-based BBC Micro went down a storm and the astonishing demand outstripped supply for weeks. The popularity of the BBC Micro was even more astonishing, given that early models could overheat and were temperamental. Everyone but me had a BBC Micro: I bought a Sharp MZ-80K (another Z80-based computer). Acorn decided to move downmarket (even though the BBC Micro was very reasonably priced) and, in 1983, it launched the Acorn Electron. Having

▲ **THE ACORN ELECTRON WAS A MODEST FORERUNNER OF ACORN'S LATER RISC-BASED COMPUTERS**

resisted temptation for so long, I bought an Electron. Naturally, this was the wrong model to have selected. It was a cut-down, slowed-down cheaper version of the BBC Micro and sold for £199. It could run most of the same software as the BBC Micro, but not everything. It could not accept the same hardware add-ons, and, worst of all, had almost no expansion capabilities.

My first 6502-based computer was not a classic like its bigger brother, the BBC Micro. It had the same brand of Motorola processor but running at a sluggish 1.8MHz and 32Kb of RAM as standard. Its 32Kb of ROM included the by-now famous version of the BBC BASIC programming language. This was more Pascal than Basic, and allowed clever programmers to access the operating system and run a BASIC application at impressive speeds. The Electron had good graphics and text modes for the time, and supported text to 80x32 and graphics resolutions up to 640x256 pixels with eight colours. Best of all, as with the BBC Micro, the Electron supported a good sound chip that, with a little programming effort,

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could produce a modest symphony. To store program files there was a socket for a standard cassette recorder, together with three types of video output ranging from a standard TV modulator through to RGB connectors for those with a high-resolution monitor. If only Acorn had spent some of the video connector budget on other types of connector!

If you wanted to expand your Electron, you had to buy an add-on unit that plugged into the back of the machine and included various extra ports. There were three types of these add-ons but only two were ever sold in reasonable quantities: the Plus 1 provided a serial and parallel printer port, while the Plus 3 supported a 3.5in disk drive. For the adventurous, third-party manufacturers sold add-ons that included an EPROM programmer (essential for any self-respecting hacker at the time) and memory expansion units.

The Electron provided a modest stepping stone towards Acorn's current range of great RISC-based computers. But I should have bought a BBC Micro — the big brother that sold fantastically and still has a very active user environment on the web. The Electron sold modestly and was not the great budget-level success Acorn had hoped, but then, following an unexpected runaway success is a difficult task.