

Chapter Twenty-Six

The Electron Buddy System

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As long as I've been making music, I've been making music with electricity: my first instrument was an electric guitar (I was terrible), which was quickly followed by a tape recorder with sonic quirks of its own, and my first homemade circuitry. From the start this music required *connections*: the guitar, tape recorder and circuits all needed to be hooked up to one another and amplifiers before a sound could be heard. I found that the more interconnections, the better things sounded: the guitar was duller without a fuzzbox, and even shinier with tape echo, feedback and a squealing oscillator thrown in. Electronics, like the nature that spawned them, abhor a vacuum, and circuits seem smarter in groups than alone.

The 1970s were a good time for socially active circuits. It was the heyday of analog synthesizers, festooned with patchcords. Making music with them was like building with noisy Lego blocks, and one usually ran out of patchcords long before exhausting the connectional permutations. Gordon Mumma, David Tudor and their adventurous colleagues and students took electronics out of the studio and onto the stage. Tudor's sprawling matrices of small boxes resembled ant colonies more than musical instruments: with numerous interconnected pathways, they evinced a mysterious collective behavior that went beyond the understanding or control of their solo human performer. Any individual circuit might have been relatively simple, capable of only a narrow range of sounds, but the multiple lines of signal flow and feedback contributed an inherent instability, such that one small nudge of a knob or flick of a switch could propel the array from dead silence to complex, self-perpetuating rhythms.

I spent the better part of the decade tangled in homemade musical circuits, and then in 1978 I bought my first microcomputer. An A4-size exposed circuit board with a calculator-style keypad and display, the Synertek "VIM"

resembled an electronics project more than an iMac. The machine demonstrated two great advances over the synthesizers and circuits that came before:

- Through clever programming, this one circuit could emulate numerous individual circuits, in one compact package.
- It had *memory*, which meant it could embody one of the essential attributes of a score or musician: it could autonomously run a sequence of events, and it could make decisions based on evaluating past events.

Admittedly, programming in assembler language was brain-numbingly frustrating, but fixing bugs and tweaking the program was easier (or at least less destructive) than de-soldering. My First Microcomputer seemed so sophisticated (and expensive!) that I was tempted to hook it—and it alone—up to a speaker and let it sing. And so I did. For exactly one piece, a disappointingly flat piece, a piece performed once and only once. Then I was back to adding wires and introducing the computer to other circuits, instruments, and sundry objects.

Today, with so many musicians in the thrall of “laptop music,” I feel so anachronistic: my laptop is there on the stage, to be sure, but wreathed by several years accumulation of musical flotsam—no different from any other circuit, except maybe, still, a bit more expensive. Despite the power of a single modern computer, and the myriad “virtual interconnections” possible with software plug-ins, there’s no substitute for real jacks and plugs. Is it just a coincidence that “hooking up” has recently entered parlance as a synonym for a casual blowjob? Virtual connections are to patchcords as the chat room is to the back seat of a car.

All of this should come as no surprise. Circuits, like improvisers, tend to follow the logic of “the wisdom of crowds,” in James Surowiecki’s words:

If you ask a hundred people to run a 100-meter race . . . the average time will not be better than the time of the fastest runner. . . . But ask a hundred people to answer a question or solve a problem, and the average answer will often be at least as good as the answer of the smartest member. With most things, the average is mediocrity. With decision making, it’s often excellence. It’s as if we’ve been programmed to be collectively smart.¹

Music is not a race, but a series of decisions. And circuits—even the fancy ones we call “computers”—seem to be inherently “collectively smart,” even when, occasionally, individually rather plodding.

NOTE

1. James Surowiecki. *The Wisdom of Crowds*. Anchor Books (RandomHouse). New York. 2005. P. 11.