SWITCH

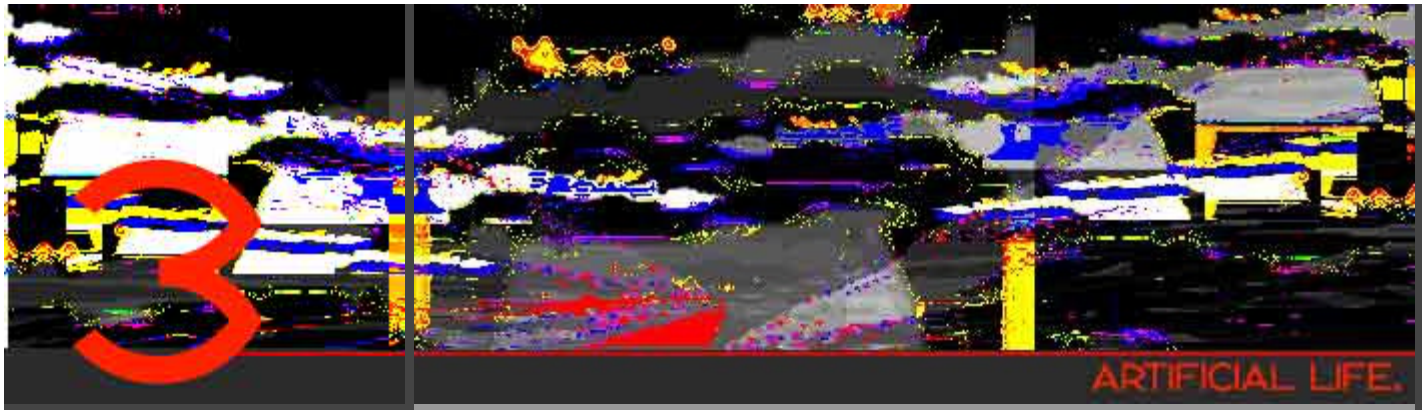
Volume 3
Number 1 *Artificial Life*

Article 17

5-1-1996

How I Got Gnarly

Rudy Rucker



How I Got Gnarly

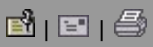
Rudy Rucker on May 1 1996 **issue 03**

Adaptation from Report from Silicon Valley

How I Got Gnarly

[This is adapted from "***Report from Silicon Valley***."] During the years 1982-1986 I was living as a freelance writer in Lynchburg, Virginia. Eventually living in Lynchburg became unfeasible. I was broke and getting deeper in debt, while our children were needing braces and college. Even if it was peaceful and cozy in Lynchburg, the bandwidth always seemed way too low -- where the "bandwidth" of some information source means the number of bits per second that it delivers. What was really chafing on me the most was my strong sense that I was missing out on a great intellectual revolution: the dawn of computer-aided experimental mathematics. Fractals, chaos, cellular automata---it was everywhere. I clicked over the final switchpoint when I did some interviews to write an article on cellular
automata. Those guys were having so much fun, looking at such neat things, and making up such great theories about what they saw! I decided to become one of them. If you're already a mathematician, becoming a computer scientist is not so much a matter of new knowledge as a matter of new attitude. Born again. Willing to commit to the machine. By way of preparation, I wrote MIND TOOLS (Houghton Mifflin, 1987), a book which surveys mathematics from the standpoint that everything is information. So when I got a chance to interview for a job in the Mathematics and Computer Science Department at San Jose State University, I had thought enough about computers to give a good talk on information theory. They called to offer me the job on March 22, 1986, my fortieth birthday. In THE UNBEARABLE LIGHTNESS
OF BEING, Milan Kundera talks about "the frenzy of a forty-year-old man starting a new life." That's how it was to move from Virginia to California with my wife and three kids and to start teaching computer courses. The very first semester,they gave me a course in Assembly Language to teach. I didn't know anything at all about assembly language; if the truth be told, I didn't even know what DOS was. Fortunately there was another mathematician-turned-computer-scientist at
SJSU who was teaching Assembly Language the period before me. His name is William Giles, and he's a great teacher. I went to his classes and wrote down everything he said, and then I would teach that to my class. The big turning point came in October, when I was invited to Hackers 3.0, the 1987 edition of the great annual Hackers' conference, then held at a camp near Saratoga, CA. As a relative novice to computing, I felt a little diffident showing up at Hackers, but everyone there
was really nice. It was like, "Come on in! The more the merrier! We're having fun, yeeeeee-haw!" Spring of 1988 I taught Assembly Language again, and this time just about all we did was write CA programs. The big revelation I had about getting the

programs to run faster was to have no rigid preconceptions about what I wanted the program to do. Instead I began to listen to what the machine and the assembly language were telling me about what they wanted to do. And what they wanted to do was to run fast cellular automata in textmode. When I look at how completely cellular automata transformed my life I can hardly believe it. A revolutionary
new idea is like an infection that's actually good for the people who get it. I caught cellular automata in 1985, and they taught me to seek the gnarl.



::CrossReference

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