

**Notes Made While Writing *The Hacker and the Ants*
by Rudy Rucker**

(Excerpted from *Journals: Series 1.*)

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Written May 15, 1990 - Feb 9, 1993.

Edited for the web November 23, 2005.

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May 15, 1990, Starting a novel (Hacker and the Ants).

Trying to start a new novel. Wrote a start today, based on a bus ad I saw, only the name was Stephen Jobs. I'm actually thinking of a character based on John Walker.

Chapter One

"WHAT WILL JOHN DAVIS DO NEXT?", reads the poster on the side of the city bus lumbering across the intersection. The poster is a picture of a newspaper headline, the poster is an ad for the Mercury News. It takes me twice to see it. I'm the John Davis. I started programming vacuum cleaners four years ago, and last year I sold out for 2 Gig. We geeks say "giga" for "billion," and what that means is two billion dollars. I'm rounding up from \$ 192,437,771.63, which is the actual check I got from ISDN two months ago.

I injected my Simula into the endless torrent of Route 280.

May 15, 1990, 9:36 PM, robots, periodontics.

Thursday last day of classes.

Like why weren't the astronauts artists?

Image of Baumgart's back room, him showing us the toys, shitty toy-store robots who bump off little walls in the thing, he says, "and this is the competition," and puts his upended computer card in there, and its much slower, but he says its smarter, and suppose it is, and dig the idea of the competition being what is really there, and dig the idea of the first early boppers hanging out someplace like Baumgart's room and working on new ones, fumblingly, and don't forget Moravec's videotape of the guys in the van at Carnegie Mellon, and his video of the machine with 18 degrees of freedom that can't like find the wall.

The seven dimensional Mandelbrot set growing through the guy's gum, mine, today and before that on Sunday it happened with a bigger piece, a piece of bone working out through my gums. A rejected piece, an island piece that had been too closely

associated with the tooth to stay with my skull upon the tooth's diremption.

May 17, 1990, W.

Up at Autodesk yesterday. Listening to W. and Eric talk is always something of a disillusionment compared to thinking about them. Endless nitpicking discussion of fine points of Tex, of Unix command shell details, the frequency response characteristics of competing sound cards. Every now and then I butt in and get W. onto a topic I care about, and it's pure gold, of course. How he put the .CAO rules into the CA programs: you just copy the .COM file into a malloc-ed area of memory and have a jump to it. Fascinating, right?

May 20, 1990, Hacker and the Ants protagonist.

Thinking more about not having the main character in my new novel be a rich boring geek, and having reread "A Transrealist Manifesto," I think the main guy had better not be a millionaire but rather be a guy who wants to become one. He can KNOW John Davis, and be setting up a deal with him, in other words he can be like me. The name John Davis really really stinks by the way, so I need to change it. Have it capture more the cartoon geek quality of W.. John Crawler. Yes, akin to Cap'n Crunch's name of Draper. The main guy's name? How about Jerzy Rugby, I like that one. He's Polish on his mother's side and old US on his Dad's.

Took a meeting at Autodesk the other day with some guys from Intel who are into DVI (digital video interface) and what us to use it for cyberspace. It's a "chip set" Intel is making which is on a board so that you can take a video image and info-compress it down to a small file and later decompress it to look at it. So you can get 72 minutes of video on a CD, assuming your computer has a CD drive. I love the jargon the Intel guys talk. A couple of years ago I heard them talking about "looking at the kinds of outs you're getting from a fab" meaning the kind of chips that are being output by a fabrication process. Their main DVI guy is called Arch Luther, and he uses Pyramid Quantization, which is a "proprietary algorithm". If you get into "ganging chips" you could do things faster. Our guy Randy Walser told them we weren't interested in an arrangement which would "bind us to certain deliverables."

May 22, 1990, trying to start Hacker and the Ants

Here's a new stab at a start for THE HACKER AND THE ANTS

Chapter One

Zsolt Szentgyorgi was a devil-may-care guy. Born and raised in Budapest, he emigrated when a vacationing German university student fell in love with him. The girl's name was Ute Besenkamp. Ute became pregnant and smuggled Zsolt across the Yugoslav-Italian border in her car's trunk.

Zsolt's father was a schoolteacher, and he had spurred his children to get every particle of available education. All five of them studied engineering: Kinga, textile engineering, Arpad, drafting engineering, Tibor, fluid engineering, Erszebet, electrical engineering and, last of all, young Zsolt with his chemical engineering.

In Germany he found a job with the Bayer chemical company, a multinational

industrial titan, with its huge motherplant in Leverkusen. The employees lived in an terrorist-proof compound. Zsolt worked with a group analyzing and refining industrial processes for making rubber out of vegetable latex. Bayer sold the necessary chemicals worldwide, and sent out teams to maintain the processes on site.

"Gummi," Zsolt said happily when people asked him what he did.

Zsolt's boss was a Herr Rudelmeyer. Rudelmeyer had lively eyebrows and a gnomish facial expression. He was frequently in a bad mood because he had ongoing dental problems with his gums and his teeth. Most recently a periodontist had talked him into getting seven of his teeth extracted, and now the ragged socket bones were wearing chip by bit through Herr Rudelmeyer's tortured gums. He spent much of his time alone in the executive washroom, doctoring his mouth with antibacterial and palliative potions including, of course, the proprietary Bayer aspirin.

One of the laboratory features Zsolt enjoyed working with were the remote handling devices. There was a ceiling-track mounted pair of "wonderhands" for using inside the sealed fume-chamber, and a larger "golem" manipulators. You wore VPL Datagloves, Sony Eyephones, a special pair of earphones, a sensor bead on your head, small stereo earphones, --- it was like a hair-pin or a small barrette ---

[[Big description of playing with them with his pal Johann]]

One memorable day, Zsolt, Johann and Herr Rudelmeyer represented Bayer at a meeting with two men representing a California software company called Adze, Inc., and a Japanese company called Tsukuba.

The Adze salesman was so mellow and diffuse as to be a parody of a Californian, but the Tsukuba salesman was full of information. His group produced a line of customized telerobotic devices which could, using Adze software and fuzzy logic, be taught to perform a great range of services.

The sample they traveled with was an industrial vacuum cleaner cum burglar alarm, depending what sort of base you mounted it on. One base was a heavy hemisphere, for vacuuming, and the other was a small light tripod of three lively wheels. The remarkable thing was that the same robot head could control both functions, modulo the swap of a small optical disk. The hard thing for it at first was that it had to learn the environment. You gave it a learning program for that. Once it had taught itself the lay of the land it could do a few useful things.

Unfortunately, Mr. Pearce of Adze set a dip-switch wrong before the first demo. Instead of slowing down, the vacuum-cleaner accelerated as it approached the glass door, shattering it with a sound that was astonishingly loud in the small lab.

Harvey Grosst wiped his forehead and avoided meeting Mr. Matsumoto's eyes. The demo was not going well.

"Sign error!" said Ed Clapper cheerfully. The vacuum cleaner busied itself sucking up the fragments of broken glass.

"The ants...they've gotten loose." Susumu
Coevolution of hardware and software.

May 23, 1990. Proctoring a final. Hardware?

Talking to Marc Laidlaw about not having a rich hero, he said, well you could have him fall from grace and end up in a Togo's, not even working there, just like begging for pickles and onions. I want to write about what its like to live here, put in all my little observations, e.g. of students --- I'm writing this during the computer graphics final. I'm looking at a girl who had the chickenpox and missed 2 weeks, sitting there in front now, writing with the slit-eyed calm look certain students get when doing a test.

Maybe I should make this book a prequel to SOFTWARE, have it be HARDWARE, set somewhere in the period near 1995. This is a wildly unrealistic date, by the way, with 1990 almost over right now, and no independent robots anywhere near and also no space program to speak of. I wish I'd put everything in Software and Wetware ten years further back.

November 28, 1990, 8:42 PM, Characters for Hacker and the Ants

Mansonesque Spahn Ranch Straight Satan Ouish Morehouse lowlife type characters would be a nice addition, if there were any anymore, but might as well write as if there are. Book should be a veritable compendium of California types. Filthy Phil in Software was a Manson type guy. I am enjoying about Ed Sanders's book *The Family* (which I am reading as background research to write my LA Times Book Review of reissue of Heinlein's *Strangler in a Strangle Land*).

December 11, 1990, 9:24 AM, Chaos done.

The decks are clear. *Chaos* is getting shrink-wrapped, the LA Times review is done, today is last day of class. No new classes till Jan 28, and Autodesk they're into "hanging back and thinking" before we start a new project. I hope I can actually write a little bit in the next six weeks. Since June, when Josh took over the Chaos code, I haven't really done anything creative.

March 22, 1991, Hacker and the Ants proposal, take leave of SJSU.

I'm calling my new novel *The Realtor And the Ants* now.

In San Jose there's a Vietnamese gang: The East Side Virus. Vietnamese for moon: is "Ngoc Tho," which means Pearl Rabbit.

Yesterday I talked to my agent Susan Protter. She liked the first 43 pages I sent her, says my editor at Morrow is really eager to see it. Yesterday I sent Swarthmore College the last of the tuition for daughter Georgia, thank you Autodesk.

Which leads to my today writing a letter to the Math Dept asking for full-time leave next year! The novel contract could bring in almost as much as what SJSU would give me anyway (what with me being on half-time leave to work at Autodesk), and I don't need money as much with Swarthmore paid off. I'll write all the time, it'll be great.

This plan is my 45th birthday present to myself. Editing *Transreal!* lately I've been feeling so mournful over the hiatus in my writing career. I haven't written anything since like 1989, it feels like, other than the slow inching of *Realtor and the Ants*. But now all of a sudden I feel like it could break open and really go. And, hell, if I was free to write a lot, I could get another contract after that and do like a nonfiction book too, the one after *Mind Tools*, right, I haven't let myself think about that in so long.

But now after five years of learning by teaching at SJSU and hacking at Autodesk

I've inhaled enough and it's time to breathe some of it out.

The idea of giving up the SJSU job scares me stiff. What if all I ever do then is stay at home and get fucked up? An office outside of the house would be a definite sanity saver, that was crucial in Lynchburg I do recall. A room of one's own.

To putter in lengthily, and at peace. The only bad thing about the Lynchburg life was, really, the lack of status and money.

Teaching is like social-work really. It's good for the world, it makes me feel good, but now I've done five more years of it, and I'm ready for a rest. I'll never get tenure and sabbatical anyway, but I can act as if I had it, can't I.

April 3, 1991, Gilbert Shelton, Hacker and the Ants

Reading "Philbert Desanex's 100,000th Dream" by Gilbert Shelton. What a great story that is. He's shipwrecked, comes ashore, gets on a train in his underwear, starts cursing, is taken to court, walks out of court, finds a flying machine with pilot on top of the building, the machine flies him to... "It's MY HOUSE! The house where I lived when I was GROWING UP!"

Wouldn't it be fun in my book if the ant took Jerzy someplace like that? Like some very elaborate wonder fun house trip... First idea is to rush him to the Ant Queen, but why rush? Then I only have to think of something else to do. Why not kick back and make the most of this bizarre situation, get like the next 50 pages out of it, as if the first 50 was part one, though for some reason I'm resisting cutting the book up into chapters and sections, I'd like it to be a seamless single rap. Are there any books I can think of offhand which DON'T have sections or chapters? In any case, I don't need a break or pause for breath yet, there is a steady flow of events from Jerzy waking up to Jerzy getting on that ant, and now the consequences are still flowing steadily. Maybe a break after he gets out, maybe a switch to another viewpoint, but at this point I like the discipline of just surfing this wave as far as I can, and then a bit further than that.

June 14, 1991, Offer for Hacker and the Ants, Magic Flute.

Avon/Morrow made an offer with delivery June, 92, a year from now. Yay! Today I got the book (49 pages done) out again, pen in hand, haven't touched it since April 1. I think Susan can get the deadline up to December 31, 1992.

Last night we 5 sat in Box A at the San Francisco Opera to see *The Magic Flute*. *Die Zauberfloete*. I thought how nice it would be for *The Hacker and the Ants* to be like *The Magic Flute*, Mozart's last work, written for fun and in praise of reason and wisdom, also for sheer love of theater and effects (impression gleaned from *Amadeus*). The priests are a temple of Isis and Osiris, and carry instruments that are mathematical and Masonic. The design by Hockney. The Queen of the Night (*die Koenigin der Nacht*) tells Prince Tamino and Papageno that Sarastro (cf. Zarathustra) has kidnapped Pamina because he is evil. But Sarastro is in the *Weisheitstempel*, he is for *Klugheit und Arbeit und Kuenste*.

To write about all the California things, as I told John Douglas I wanted to do. Leafblowers. Airheads. Today at the oral surgeon's I saw a name on the check in computer: Justine Butcher. Possibly a usable name. Shelly Butcher? Rawboned with a profile like a crescent moon, Ms. Butcher has tubular brown legs plastic-glazed by her hose. She has long, bright, false fingernails. She wears a dumb short-pants jumpsuit

under her crisp white coat. She has a high-torsion perm held by two barrettes; centered between the barrettes is a giant fluffy spit-curl in the center of her high forehead. She has high eyebrows and a small bud-shaped mouth. As soon as Carol left, Justine Butcher looked over and said, "Hi." The phone rang. "Rilly. Uh HUH?!?"

Jerzy: "Alone in a restaurant. Always alone."

June 19, 1991, Some California types. Woman drive, Yost.

Jerzy driving near the Crystal Springs reservoir: The fog resting on the Santa Cruz mountains like whipped cream, and further down the highway the fog has slid over, making 3D patches that move out to the road, driving here is like flying through a cloud. Ahead of me I see a woman alone in a rough old American car. Her hair is a sluttish tangle, she is talking --- or singing? --- to herself? She is not smiling, yet her expression is not unpleasant --- a bit wary, her look, she's a California woman. You never know what you're getting into with a person out here --- politics, drugs, madness, cults.

Talked to Yost on my way home. He had a bunch of 3D Studio images. They scan in things like wood, fabric, clouds, even trees, and just paint those things onto objects in their images. He had an image of a crucifix, which made me realize there ought to be Jesus freaks in cyberspace, sending their crucifixes sailing around. Yost also talked about going to airports and finding Lanierites in rubber datasuits, offering to take your plane-ticket in exchange for you taking a virtual trip to wherever you wanted to go, specifically to SIGGRAPH.

June 28, 1991. Hacker and the Ants sketches.

Mathematicians know these three- and higher-dimensional shapes as the *anomalotopes* of R. S. Twisterman, who exhaustively classifies them in his magisterial paper, "Bifurcational Degeneracies Of Odd Edge Cycles," (Proc. Simp. Ass. KJ 39, pp. 979 - 1024).

I used to be a professor of mathematics back East before I turned forty, came to California, and became a hacker.

When ants mate, the winged male in question pushes a little penis-thing out of his cloaca and wedges it into his queen's hole. After she's through with him, she usually does it with a few other lucky guys as well --- the single time she mates, she stores up enough sperm cells for the rest of her life.

An odd thing about California after the East coast is how many wholly unbroken miles of blank land there still is out here, all around you on any of the North-South arteries, from Route 1's endless cow pastures to 101's rolling elephant-grass hills, to Interstate 90 midst miles of irrigated fields and blowing dust.

"What does your software do for you?"

"It feeds a packeted instruction streams into the G-fiddle-dee-dee."

"What the hell is the G-fiddle-dee-dee?"

"Got you going on that one, hey?" said Brie happily. "It's our in-house code name for the new robot Seven Lucky is building."

September 26, 1991. Computer industry meeting at Fairmont.

I went to a meeting of computer types sponsored by Tandy for their "Gryphon"

CD TV system in the San Jose Fairmont. Notes:

Tasteful. Gold and cream striped wallpaper. Wall chandeliers. A rug with a diagonal grid with florets at the grid intersections. The halls are big, like 30 feet across and high, square in cross-section. We sit in a dim big room with 7 rows of tables with white linen cloths and pitchers of water and dishes of hard candy.

They talked about "focus groups" who talk about what they want. "roll this out to the public." "It's not YUV16, it's YUV8." "You can recognize the Tandy guys by their accents."

A saintly, monkish guy with blue eyes, young working on his laptop with clip-on trackball. The Texas Saint.

Chroma crawl. Eager, let's-get-down-to-it gum-chewing as speaker says, "You'll be able to get in and fiddle with the bits." "so you guys can party with the hardware."

Microsoft shows us a windows film of The Leader (gates).

September 30, 1991. Robotics and VR.

Possible kinds of relation between robotics and virtual reality:

Mind	Body	
Cyberspace	Human	Simmie
Artificial Life	Computer	Simmie
Telerobotics	Human	Machine
Robotics	Computer	Machine
Teledildonics	Human	Feely-blank
Artificial Sex	Computer	Feely-blank

October 1, 1991. What is cyberspace?

Instead of building lots of prototype machines, GoMotion put together what we call *simmies*, virtual models of machines that we could cheaply test inside our computers' cyberspace simulations.

While the phone rang on, I donned my special headset and gloves, and reached into cyberspace to rip the simmie wires out of my simmie phone. The ringing stopped.

What is cyberspace? It's the huge, interconnected computation that is being run around the clock on our planet's many computers. My computer system is a door into cyberspace, that great consensual hallucination that has oozed out of the Valley's computers like stage-magic fog. Cyberspace is the world computer network, perceived as a visual space.

Due to some exceedingly sharp hardware and software hacks my machine can show how cyberspace would look from any angle and any location, with all simmies projected correctly onto the plane of the computer screen. No matter how rapidly I change my viewpoint, the images keep pace. It is as if my computer were a window into

another world, an alternate reality populated by the raw evolution of ideas.

Seen on a large computer screen, cyberspace is fairly convincing, but it becomes the more compelling when you put on a headset. The computer works a bit harder and generates two images that it sends to the two lenses of the headset. The images are calculated from slightly different viewpoints so that one gets a full stereo effect.

October 4, 1991. An image.

They [the ants] looked like the expanding cloud of a massive explosion or the massed florets of a cauliflower.

October 9, 1991. Hacker and the Ants word count.

The contract specifies 80,000 words. I get 333.1 words per page, so that indicates I need 240 pages before I can hang it up.

At this point I have 90 pages done, which puts me $(90 / 240) * 100$, or 37.5 percent of the way there.

I was thrashing at trying to start the book in the spring and summer of '90. I think the first page or two might be older than that even, I've had them around forever, they might go back to 89 even. In January '90 we had a party, and I remember telling the guests about the *dark dream* scene, so I know I had like 20 pages done, a first draft of what are now the first 24 pages.

For purposes of estimating how long it's going to take to finish, it would be fair, maybe, to say I started writing in November, 90, 11 months ago, which suggests I'm progressing at $90/11 = 8.2$ pages per month. If I still need $240 - 90 = 150$ pages, that looks like $150/8.2 = 18.3$ months, more which I could perhaps finish in April, 1993. So I'll set a target of May 30, 1993. The contract says December 31, 1992, but Susan claims it won't be hard to get a further extension if I need one.

November 4, 1991. Tired of writing.

Monday. I'm getting tired of not teaching, of being at home working every day. The weekends are the same as the weekdays, sort of.

November 22, 1991. Talking to F.

Day before yesterday, I went to visit F. and B. I had coffee in their kitchen as F. talked about the "Anomaly Conference" she wants to organize Feb 15. I'd said I'd talk about the Hollow Earth, but remarked that it wasn't really true and I didn't really believe it. She said something like, "I traveled all over South America and I took drugs with brujos, and I know there has to be something more. Something beyond. The things you study---artificial life, cyberspace, they're like that." Me, wearily, "No, those things are just science. I don't think about the beyond anymore. Everything I do is just science. There's no mystery to it at all." "But there has to be some mystery to help get us through these dreary times. We need it." "So get the New Age people to talk at your conference." "They've been around, we've all heard it. We need New Mystery." "Synchronicity? That just comes from taking LSD. You take LSD and you believe in synchronicity. I haven't taken LSD in a long time." "You hide behind your preppy clothes and your sleepy expression. Come on! Be interesting!" It occurred to me that there still could be some wonder in the world, and that I really have let myself to become

blind to it, with all my energies going into worrying about how much I drink.

It's so nice when I get out of my house these days! This working at home is turning into a bummer. Yesterday I talked at the SJSU Math Dept. Colloquium. I was incredibly nervous about this talk, as here I was presenting myself as a mathematician to fellow mathematicians who know me. The talk went over well. Afterwards we had dinner in a Cuban restaurant, which was very pleasant, though somehow not joyous. I have a real feeling of homesickness for human contact.

December 27, 1991. My Boppers program.

Idea on the ant organization principle for the *Artificial Life Lab* program I'm working on. Each ant can read or write from any (x, y) . An ant's computation space can be an antland. Existing ants can contact themselves and treat the larger information space as an antland. Like nodules.

The vision is that an ant can move in small steps like windrose 12 or in large steps like windrose 256, or even in arbitrary (dx, de) increments. This radically generalizes the Turing machine model where $new_tangent$ is always a rotation of $old_tangent$. Why shouldn't the length change? Maybe the direction variable should after all be a real? $\langle\langle speed\ hit\ speed\ hit\ speed\ hit \rangle\rangle$ but maybe not such a bad hit for the result's value?

The ant is more active when it takes small steps. If it hits a wall, it CHEWS through? Could we make the inside of walls a forbidden area? Like the valuable seed inside a husk. The ant, if trying to land in the rectangle/region of the fruit, is bounced. It has to gnaw through the fruit. It has to enter a different gnawing mode of behavior. Maybe some modes should be only updated every ant->minute count. Think of the individual ticks as seconds. Think of the mood changes as minutes. Think of the breedtime as a year. If the need for an hour, day, week, or month arises, we can interpolate them. Also century and era above year. It might be interesting to just scale these as known quantities?

Concept: A universal computer like a Turing machine can do anything, draw anything. So let your drawing tools evolve. In order to prevent a lot of waste "computational" screen writing we should allow in the drawing language many primitives like square, sine, etc.

January 31, 1992. Done with MONDO User's Guide.

OK. I finished putting together the MONDO 2000 USER'S GUIDE TO THE NEW EDGE yesterday. Now it's back to THE HACKER AND THE ANTS.

March 26, 1992. Hanging out at Autodesk.

I'm on the plane to Boston to give my NSTA (National Science Teachers Association) talk. I should have made contacts and appointments to see people at the Computer Museum and at the Media Lab, not to mention Toffoli and Margolus. But now I'm like too big to bother. Either someone will come up to me at the talk or they won't. And in any case I'll see T&M in Cornell. *On s'engage et puis on voit*. I have about 40 slides and 50 Xeroxes ("smearoxes" in Gosper-speak) of a 14 page single-space paper called *Adventures in Experimental Mathematics, or, How I Stopped Worrying And Learned To Love The Computer*. The paper is sampled from my CA Lab manual, from the CHAOS manual, from my EYE article, from my SJSU talk, from my Autodesk

ALIFE talk, and from my realtime on-the-case mind. It is the bones of a future book, my big autobio wonder-book on hacking and me to be illustrated by my graphics and by David Povalaitis.

The compulsion to yell out strange words, precursor of Tourette's syndrome? The Oofth of Ifth, a "date" in a crazy 2D-time golden age SF story.

Yesterday at Autodesk, Grendel was showing me a computer game he'd gotten off the net and I thought it would be interesting to put this into THE HACKER AND THE ANTS. I was in a low-ceilinged tunnel. Hideously primitive groany-moany MIDI organ music swelled about. The walls were texture mapped with a rough pixelization which got the bigger the closer you approached. I surged forward, looking for air. But there was not air. In this cyberworld there was nothing but the endless fucking passages and the wood doors with locks and pixelized skulls and bones. Behind one door we found a rat, and a steel sword point popped up in front of our invisible body like a hard-on. The corned rat reared up and the sword touched him, he turned into a puddle of blood next to the drumstick he'd been gnawing. Grendel acquired the food. "Are you going to eat food with rat blood on it Grendel?" "It goes over here." He moved it to the mouth part of the body icon. "Grendel let's get out of here. This is really depressing." "Wait, wait, you haven't seen how they do water."

May 15, 1992. Thought about my Boppers program.

To begin with, anything which the ants can screw up has got to be digital. The 1992 analog standard is NTSC, and there is no digital standard. HDTV was originally a bigger (analog or digital)? signal which was compressed as well. Then people had the idea of applying the compression algorithm to NTSC to make the signal small. Digitally compressed NTSC can be sent at the rates of 10 to 20 channels per channel. You need a decompressor chip, but this chip could be in the individual TV. So all the TV being broadcast could be digital. The ants would not be infesting analog ham broadcasts.

Big idea yesterday about fusing vants and CAs. Have the CA cells be vants (with just a pointer to a rule or lookup table instead of all that DNA, because (a) they need to be small and (b) I will not be wanting great diversity among them). A CA cell is a *vant* (for "virtual ant") whose move rule works by "eating" the local neighborhood of pixels (sniffers have 3 in front, I think a 5-cell von Neumann neighborhood would be better, or even a 9-cell Moore neighborhood).

I have this image of a slow river of variously shaded blue cells flowing down the screen. Twinkling lovely water. The vant settlements leave bends in the river like archaeology.

May 22, 1992. M.. Chore Boy story.

Went over to Paul M. & Hal's house this week, told them the story of *The Hacker and the Ants*, it seemed really interesting and funny as I told it. As I talked I had the idea that the ants should have mites living on them, like an electron microscope picture of a pore-patterned bug's back with a mite latched onto a hair and a mite on the mite. I had another good idea too, now what was it...oh, yeah, when I was talking about the Meta Meta Chore Boy house robot that killed a baby, M. wanted to know how it killed the baby. He thought that I was telling a true story. "It was vacuuming and it ran over the baby." "Naw, I don't believe that." "Oh, yeah, it was Thanksgiving and the

family went out for a walk and they left the robot to keep an eye on the baby. The robot was supposed to put the turkey in the oven. Only it got mixed up, and it put the baby in the oven." "With the meat thermometer." "Yeah, it stuck the meat thermometer in the baby's throat to get to the body cavity and the baby died instantly, so there were no warning cries to alert the Chore Boy. And when the family comes home the robot is bent over the turkey, crooning a lullaby, and trying to put a diaper on it, and the horrible truth dawns."

July 13, 1992. A plastic Assessor woman.

An Associate Appraiser just showed up and measured and took notes on our house, something for the landlord. She was a plastic California woman who could easily work with my characters Susan Poker and Gretchen Bell.

I see her in the driveway when she arrives. She has signaled her arrival by several carphone calls to Sylvia. She has a fluffed mane of distressed blond hair, shades, peach bermudas and a tight white top. She has a round little shiny lipsticked mouth. Out there in the driveway she seems as glamorous to me as a person on stage. She waves me off as I'm not Sylvia, and I go back to my desk. She talks to Sylvia outside, and measures the outside of the house for a long time. Sylvia comes in, we hang out for awhile and Sylvia goes downstairs away from the living-room, kitchen and the office where I work. I sit there typing. Having introduced herself to Sylvia, she does not introduce self to me, I am a renter, a parasitic instar, a thing born only to pupate and change, a person of no significance save as a possible sexual partner, and that possibility is quickly ruled out by a glance at me.

"I'm just going to take some notes."

I stand and look at her for awhile. She is fine to gaze upon, materialized here out of carphone crackle, right here upon my carpet. She writes busily on her pad, repeatedly glancing over at me with a dismissive expression a few times and then she switches to impatience.

"I'll follow you around and keep an eye on you," I say.

"Just to make sure I don't steal anything?" she says with a frosty giggle.

"For instance," I say, falling back into my natural position as the defending homeowner.

She springs to the attack. "How much rent do you pay per month?"

"You'd have to ask the owner," I say.

"What?"

"You'd have to ask the owner."

This ends our conversation for awhile. She moves into the kitchen and I move to my desk, getting back into the start of Chapter Seven of THE HACKER AND THE ANTS. She moves through the kitchen then stops in front of the sink for a long time, standing there in quarter-view and writing. Her hair hangs to cover her eye, I can stare at her body to my heart's content. Her shorts are nice and tight on her lower butt with an intense visible panty-line veeing up out of the crack. Her lower spine curves enough to push her buttocks well out. She holds her shoulders thrown back as well, and her briefly glimpsed breasts are mammoth mounds. *I should have been nicer to her*, I think. She comes into my office and stands in the door, stiff and miffed, knowing her power.

"There's a bedroom and a bath in there," I gesture helpfully, hoping to ease her

out of my space and on her way. On her way back out of the bath and bedroom she gets a good look at me writing, I'm knocking out a coherent sentence or two. I'm proud to have gotten into it in time so she could see *me* as if on stage sitting there writing a novel at my desk.

Then she goes downstairs and bothers Sylvia for awhile and then says, "Goodbye, Sylvia!" and comes back up to my level and calls through the kitchen to me.

"Thank you for your time."

"Oh that's fine. Thank you," I call back, standing and following her perfume towards the front door. She is about to vanish forever.

We shake hands --- I think --- and I totter back to my computer to start writing this, then go downstairs to talk to Sylvia.

"Did she ask you how much we pay in rent?"

"No! Did she ask you?"

"Yes, but I didn't tell her. I told her she'd have to ask the owner."

"What did she say?"

"She said, 'What?' and I said, 'You'd have to ask the owner.'"

"She spent a long time in my closet."

"It smells like her perfume in there. Maybe she was looking at your dresses."

"She was measuring."

Then Sylvia was dressed to go out and I said good-bye to her on the front deck.

"Look how nice the plants look," she said. "That work I did this weekend was worth it."

"Yeah, the house looked good for the appraiser."

"Hah! *That* little chippie? I've been redoing the garden because we just went to Europe. After being in Switzerland, especially, I always want to make everything nice and tidy."

July 23, 1992. Qat.

"Wise-acreing for the swing of thought." --- G. I. Gurdjieff. Big article on Qat today; every few years you see this article of like shock that there is a country where everyone is happily strung out on a plant drug and its not a crime. Yemen. Qat leaves are loaded with a natural amphetamine.

August 1, 1992. Hacker and the Ants plans. Dirk Blanda.

Spent the afternoon with a guy I know who's, a model for the character Dirk Blanda. Talking to him, I realize that the sinister *Hacker And The Ants* figure Hex DEF6 is Dirk Blanda! Yes. The last person you'd suspect. I never suspected him until today, and I've been wondering who Hex DEF6 is for nigh onto three years.

Give Gretchen a scene looking like the perfect girl I saw at the Jimmy Cliff concert in Santa Cruz last week. Her teeth a bit too pushed forward, bursting out of her mouth so she always smiled, her denim smock draping down off her Big Ones. Bouncy, loud, brassy blonde hair. I saw her smoking a fat joint passed to her by her girlfriend. She dances a few steps, then sticks her tongue out and down over her chin and rocks her head back and forth a bit she's all --- **yay, I'm feeling wild!** Wild enough to dance near no doubt. I stood close to her and enjoyed her smell and the fanning of the air that her body motions made. Soon tiring, I sat down on a railing to look at her better. Right next

to me is another 46 year old man in a post-Hawaiian shirt and shorts, sitting there staring at the same girl, not in an obvious or territorial way, but surely (I do believe) staring at her. Off to the left on the railing were two thirtyish guys with mild Rasta locks, straight noses, deep tans and blonde beards, street stoners, hard-baked looking as Bobby Beausoleil on the Spahn ranch, and onstage was Jimmy Cliff himself, the same man Sylvia and I listened to on our first reggae tapes in 1979, exiled in Heidelberg, punk-sure that the world still owed us way more than we were getting; we saw *The Harder They Come* at the Fauler Pelz cinema there, and Eddie sent us a tape with Spear and Jimmy and many more.

That face, that bad-girl wild-girl marijuana-smoking face, the head not so much going back and forth in a *I'm delirious* message as nodding up and down in an *I like it*. When I saw her making the face I was ten feet in front of her and had turned to look back. I saw her smoke the big thick joint and then she made the tongue face, though not at me.

August 23, 1992. Idea for end of Hacker and the Ants.

Idea: have a horror passage at the end with the robots stalking Rugby.

Was telling the stalking thing to M. at Kadrey's party last night. I'm visualizing it in W.'s Swiss house in Neuchatel. There were so many ways to die in that house. There was a swimming pool with a low translucent plastic pup-tent roof, the ridge no higher than three feet above the water, and in the bare dirt near the door was a colony of winged ants or termites, great winged male ants getting ready for a nuptial flight. "Your things are hatching right in here," said W. before opening the door to the pool room. Everything was unfinished and raw, the tiles ripped up, the walls with peeling paint. He took Sylvia and me down the concrete stairs to the concrete basement and showed us the giant boiler that could heat a town, the electricity with the fuses the size of cannon-shells, the ceiling crane, the well with a concrete cover over it, the freight elevator to climb two floors --- John called my attention to the alarm bell in the elevator, it was a bicycle bell set into the wall, "Worthy of Edgar Allan Poe," he observed.

What are the exact facts about the first person to be killed by an industrial robot, a man in Japan in a Unimation (?) arm-staffed auto (?) plant. I can find out when I go to Hackers, if I go.

August 26, 1992. I'm getting fired from Autodesk.

Wednesday. Tomorrow I get to meet Carol Bartz (unless she cancels the appointment) and find out if I'm really fired (unless she hasn't thought about it). It'll be a relief to know, I guess.

Over the weekend, Sketchy brought in a quarter pipe and by God he taught Squidboy how to skate.

September 1, 1992. My "As Above So Below" play in Fort Worth.

Tuesday. Well, guess what, I really am out of my job at Autodesk. I went to SJSU yesterday, and everyone was really glad to see me and really wants me back. I can start in Spring or in next Fall. I'm tempted to take next Spring off. Go hiking in the Himalayas with Rudy maybe? A sabbatical at last?

This weekend we went to Fort Worth to see my play "As Above So Below" about

the Mandelbrot Set produced. It was great, with beautiful dancing (Girl afterwards to me: Hi, I'm in the play. I'm a fractal.) The actor who played the Rudy/Will part did it so well. At the beginning, when he started, I felt like I was looking into a mirror. It was so GOOD to hear those words I wrote being said out loud by someone else in a full room of people who were enjoying it. They laughed in the right places, it was great. And unlike a speech, I didn't have any pressure on me, it was all done for me, all I had to do was show up and watch. I hope we can get it produced again, I sent it to Susan who says she knows drama agents.

None other than Ivan Stang a.k.a. Douglas St. Clair Smith, High Scribe of the Church of the SubGenius, showed up for the Friday performance. It was so great to have him next to me in his long hair and rough face with a gap between his front teeth, leaning maniacally forward grinning at the lines. Afterwards we were invited with the director Kathelyn and the soprano Fiorella and Johnny "Dolphin" Allen (chief scientist of Biosphere 2) to some peoples' house for dinner. I stepped out in the front yard with Stang and he shared a "fropstick" with me. Inside I made sure Stang sat next to me and he started talking about how "Sun Young and L. Ron and me were talking things over the other day." He talked about having done 110 Short Duration Marriages, with some lonely people having married him. If a ShortDurMar is not consummated in 24 hours it is a grievous affront to "Bob". "So did you consummate them?" we wanted to know. "I don't practice what I preach," he says. "I guess I'm kind of an anti-Swaggart in this instance. I tell people to have sex, and then I don't."

Fiorella was beautiful, especially as she came to dinner with her stage wig on. She had big breasts with décolletage and a line where the breasts touched each other. Her leather blouse was fastened only at the breasts, you could even see her navel. She had an extreme Italian accent and seemed like the very personification of Babs the Sex Sphere as well as Mamma Mathematica. I was glad I'd brought Sylvia, to like protect me from Fiorella, the real world "Ma," somehow called into my life by the magic of my writing. The show was even better the second night we saw it. It was great to be a visiting star artist, at moments it felt like one of the entries in Andy Warhol's *Diaries*, my favorite bed-time reading these days.

September 2, 1992. At the Black Watch bar.

The Black Watch, sitting in a booth facing the street. I see a riot of color and hear a mass of sound. Initially it is truly horrible Tom Jones shouting "Delilah." So loud it hurts. Then after the yelling finale of "Delilah," as if in cosmic forgiveness, the music switches to mellow space music. The bartender is a guy I've seen before who talks exactly like Cousin B.'s ex-partner Marcie. The front wall of the Black Watch is a riot of color, as said before. In the upper left is a TV showing, while "Delilah" plays, TNT Warner Brothers cartoons, Popeye and Olive Oyl, later a nonstandard Warner Bros. one with a baby with a Chinese meat-cleaver being baby-sat by Porky Pig and chasing Porky till the Mom gives him a spanking with big sexual body rhythm, later "The Ant and the Aardvark", and last Bugs Bunny landing on an island of Apes. His buck teeth, his chomping, his rudeness. I want the Phreak boy to be so much like Bugs. I'm thinking I'll call him Risky Pharbeque after Risky's Bar-B-Q in Fort Worth. In the upper right is a Millers neon sign shaped like the Golden Gate Bridge. To the right of that is a pinball machine with a fairly boring upright display (Lethal Weapon) but under that a generic

machine display of a thousand points of light, diode bulbs doing QuickTime Times Square things. The real jewel of the Black Watch is the front stained glass window which is, I never perceived before, a picture of the Black Watch, with the bar and a bartender and some people at a table --- at least one of them is bright stained glass blonde --- and out the door are the hills of Los Perros. By then the music was heavy metal.

I found out today I can pick up some good money for my Autodesk stock options. Copacetic! Another 3 or 4 months pay almost. I am really really going to not go back to State this spring I think today. Sylvia wants me to, it's something that is almost a fighting issue. But I don't want to. I want to be unemployed again like in the magical four years at Lynchburg when I wrote six books.

September 5, 1992. With M.. Thoughts on Hacker and the Ants.

Went to M.'s yesterday, walked around the Mission for an hour first, it was interesting. Hal has a desk with glass retorts full of colored liquids, things like alembics. He really is Professor Brainard.

The robots that kill Roger and stalk Jerzy when Jerzy gets holed up in Roger's house in Switzerland. I think they are little killer robots that Roger developed for really big money, like a trillion dollar score. He sold Jerzy to West West to make the code better. And he is using the ants, which is why he released them, to make them evolve and get better.

While they were evolving all the Our American Homes, they were also evolving Perky Pat. Maybe some ants decide to start looking like here. Tiny killer Perky Pats. Or big Swiss ones made of cloned cheese or meat. No bones, just solid muscle meat, like a bad guy in James Bond.

Risky Pharbeque like Clint Eastwood in UNFORGIVEN.

September 12, 1992. Bad Dream.

Thursday I went up to Autodesk and met the Human Relations Director; he told me that I wouldn't get some of the severance pay I'd thought I would. He had zero empathy, of course, why else would he be in charge of Human Relations. It's like the Ministry of Peace in 1984.

There was a party for the Science Fiction Channel getting onto cable here being held at Dark Carnival in Berkeley. I stopped by the Mondo 2000 house on the way, talked with Ken and Alison about our book, they gave me a Xerox, it looks good. Jas was there also, he did the Mall section.

At the Dark Carnival party I drank enough that I didn't want to drive all the way home, also I was to meet the other 4 family members Friday for dinner in SF, so I took up an invitation Alison had issued and went back to the Mondo house to crash.

Jas lives there, and we had some pasta together.

I had a really frightening dream on the couch. A thing rushes out at me is like a being, a kind of mocking and aggressive being. It's like a cross between a beetle, a black person, and a three-dimensional Mandelbrot set that resembles a stove made of checkered tiles. It is kind of challenging me to keep up with it, it is off to my left. I guess my eyes were closed at this point. The creature says, "Beetle-juice monkey," and I think *beetle-juice monkey*, and then the creature speeds up like a thousand times as fast and sort of sneers, "Nah, beetle-juice *monkey!*" and this goes into one of those

psychedelic thought loops, I go around the loop a few dozen times, and each time the creature, it's the pipe talking to me but it is shaped like a 3-D Mandelbrot kind of, the stinger sticking out, but it's voice is based on the black girls I saw in the supermarket. It's mocking and aggressive, dismissing my thought speed, trying to dominate and show me where it's really at. Numbers get into it for a second, the creature is like counting, and I hear it count up to and beyond a quadrillion, then more and more.

Now the beetle creature goes away and I'm looking at my life from the standpoint of the culture of 2030. I'm a culture hero, and people have picked apart various strands of my behavior. This is in terms of a kind of a cyberspace TV show or something, a cyberspace network devoted to talking about what I did. This thought line is a result probably of just having been over at the Sci-Fi Channel party promoting myself and generally ego-tripping. There's some part of me that is "Arfie the Half-Drunk Hacker," and it is symbolized by cactuses with the words "Arfie the Half-Drunk Hacker," running up them. This like a theme graphic for the show or something, a coyote art kind of desert with the "Arfie the Half Drunk Hacker" cactuses.

The next part was especially terrifying. I saw pennants with Arfie the Half-Drunk Hacker cactus logos on them, and Jas was wearing a hood with dog-ears to look like Arfie, and he was in a cyberspace studio in 2030 and his job was to track my doings for fans, and now somehow he'd pulled me out of ordinary reality into his studio which was not on Earth, it wasn't really in ordinary space at all, it was just this bubble of space in the Void and there was no way at all to leave it. I thought, "Oh, I'm dreaming, this is impossible," but then I started feeling my body with my hands, and my body seemed to be really there, not like it ever is in a dream and I was like begging Jas, "God, how did I get here? Let me go back to my real life. How did you get me out of my reality?" And he seemed to say something like, "You can't go back yet, now that I've got you here, you have to just hang around." And my voice was echoing and his was, and I realized that incredible media instruments were around us holographically taping and recording this as he was the ultimate cyberspace time-travel fan taping my life, it was like having captured the real Elvis in your home if you are an Elvis archivist. "I just want to go back to my family," I said. "Just sit down," he says, and I sat down on the couch like a guest on a TV talk show.

For that part of the dram, I really thought I was in this No Exit kind of space bubble outside of space and time, this alternate world, trapped there with the ultimate Fan from the Future. He was kind of a DJ too. So bizarre.

All the next day I was still pretty tweaked about the dream, and still at our family dinner a little bit I was worried about it though, obsessively recalling the details over and over and for some reason always unable to remember the full phrase "Beetlejuice Monkey", which only came to me a day later.

There was like four sides of me that the future DJ had, and only one of them was "Arfie the Half-Drunk Hacker," but the others I can't crystallize again.

September 14, 1992. Plan to use my nightmare in Hacker and the Ants.

Evening. Risky's toy cow is like Gyro Gearloose's light-bulb man.

The obsession with the Beetlejuice Monkey has finally left. I hacked all day just to discipline and recalibrate my brain, I guess.

A great metaphor, though. I can't wait to put Jerzy Rugby through it all in the

present chapter. He will get there through DMT a much better quality of VR hardware and cyberspace software than he's used to. The dream stuff is like output from a brain that runs thousands (or, according to Beetlejuice Monkey, quadrillions) of times as fast as mine. So there could be a simulation like that running in cyberspace thanks to the ants. And the thing of being trapped in the room, the Arfie the Half-Drunk Hacker talk show, that is a perfect thing to have happen to Jerzy. Before when he was trapped in the gangster nightclub with Hex DEF6 it was supposed to be like that, that was based on a dream I had, but this time I'll make it more like reality, and scarier and more intense and keep the reader in doubt longer. I mean I could stretch the doubt out endlessly and be Dickian about it, but I'd rather not overdo that since I do have a tight logical plot to present without tangling everything up in "what is real" shit. You realize, after a day or two or three of obsessive worry, that it WASN'T real, that it was just an autonomous thought process that spontaneously Zhabotinskied into existence in your brain with all the resistances cut down to zilch. But that sheer terror --- wow.

I can do it as a horror scene in the house with the robots coming and killing them. And then later it turns out at Rogers that the robots were just practicing in cyberspace on Jerzy on how to kill people. That Roger paid for this cyberdeck.

September 16, 1992. A new bad memory of the nightmare: dead Arf.

I remembered one more thing about my big nightmare, night, such an unpleasant humiliating memory that I sat upright in my bed sweating. It happened in between the Beetlejuice Monkey and the Arfie the Half-Drunk Hacker extra-spatio-temporal DJ. Maybe somen walked through the room while I was sleeping and in my dream I thought I was back at a big Mondo party in that room, I thought I'd made a big messy diarrhea in my pants and I dreamed they were saying, "Wake up, Rudy," and like "Look, oh look what he did," and "Oh God he's doing it again," and I thought I was still having big diarrhea in my pants, and the voices of protest were shriller and I couldn't see, and then I thought I'd ripped apart a live dog and was lying in its fresh hot entrails, and this had REALLY happened, I didn't dare open my eyes to face the reality of the diarrhea and blood, it was better to sink down catatonic. Weird vibes at the Mondo house.

But it's exactly the experience I needed to fully visualize how it would feel to suffer a phreak burn.

September 18, 1992. Getting my head back together.

All this obsessing and moaning about my nightmare overlooks that we had a really great and loving all-five family dinner Friday night in SF, and that my wife and I have been getting along really well. I'm so lucky to have my family. Jerzy doesn't have his. The turning point where Jerzy diverged from my life was when he had his dog put to sleep instead of bringing him to California. I've been listening a lot to George Clinton's "Atomic Dog" on his record COMPUTER GAMES. What a great song. I never realized all along that Zappa and the Stones were imitating the George Clinton funk style, I didn't know what real funk was.

Night. I called Greg last night, I'd written him a handwritten at Autodesk while cleaning out my desk, he was sweet: "Rudy, your best work is still ahead of you." That's such a nice thing to hear. I complained a little more, and he said something else nice, and then said, "Well you got a boo-boo and if you come to me I'll just keep putting bandages

on it and bandage after bandage till it's like this huge hump." So then I'm all "Tell me about you." And then later I told him about the DMT fiasco and he was "Rudy, this is the Christos talking. Your last child is leaving home and you got fired, this is not the time to be stressing yourself. Be good to yourself. Be gentle with yourself. This is the Christos talking." That was good to hear.

Tomorrow we drive our youngest child up to Oregon and she starts college.

September 22, 1992. Empty nest.

Now we're back, childless after 23 years. Last night I dreamed I was on a playground with a one year old child of mine, I lowered my face to the babe's level and we smiled at each other and I kissed it on the cheek. The main thing in the dream was the way it feels to carry around a child that size, the lovely live compactness of the little body, the kissability of the dear little face.

September 25, 1992. Expedition to court for Hacker and the Ants.

I went into San Jose today to the Hall of Justice at 170 West Hedding between San Pedro and Guadalupe, right next to the Main Jail for Santa Clara County. The Superior court meets in the Hall of Justice. Rather than being one court-room as I'd naively imagined, there are lots of them, six floors worth. I went to Dept. 33 on the fifth floor where a trial was just beginning. Judge Robert P. Ahern presiding. He was a heavy-set guy who spoke very slowly and clearly. He was still inspecting and instructing the jury. Sometimes he'd start asking a juror questions and would pile one question on top of the other bang bang bang. What college do you attend? What courses are you taking? How long have you gone to De Anza? What are your educational plans? Some phrases he used:

"Let me finish. I don't want to have to repeat this. I have the utmost confidence that this case will be completed by October 9. I will ask you the same question collectively. I'm asking for your cooperation. Let me help you out. Can you be a fair impartial fact-finder. No disrespect intended, but I'm just a traffic cop. Don't prejudge. Council approach the bench.

The exact phrase in SCANNER DARKLY that Donna Hawthorne says and which I now copied in to have Gretchen say is: "Why were you yelling? God, you're uptight. You woke me." It makes me laugh so much. Like *uptight* is such a superficial measure of how freaked Jerzy is, or of how freaked Arctor and Baxter were, but it's also such a direct person-to-person word. Imagine an ant-army of Perky Pats saying that line. I will be as revered as Phil in 20 years. He was born in 1928 and I was born in 1946. I'm 20 years behind.

The trial room: five rows of fourteen chairs with an aisle in the middle, the aisle goes through a low partition that separates off the court. On the partition is a sign: "All communications with the prisoners --- verbal, written or signal is unlawful without the permission of the deputies." On the other side of the bar is a sheriff with a gun and a belt full of bullets and a walkie talkie, then a desk marked DEFENDANT and a desk marked PEOPLE. Stu and I sat at the DEFENDANT desk, and at the PEOPLE desk was Assistant District Attorney Michael Fletcher. On the right were the twelve jurors in comfortable seats that rocked back and forth.

One of the jurors: "I'm a retired pilot. I worked for Fidelity Insurance company.

A corporate pilot. My wife is a personnel... She works in Lockheed Personnel."

Yesterday I went to see Paul M. and Hal. Hal mentioned a song, "Told the Judge to Suck my Dick."

September 29, 1992. Mondo photo shoot.

Search and replace *The Hacker And The Ants* to remove all unnecessary uses of *just, really, or so*. Though I love Andy Warhol very much, my daily reading of his diary during recent months has supersensitized me to these usages of his that I used to think were so cool when I'd only seen them once or 2ce. Just has been foul for years, as John Lennon told Cynthia Lennon, you can't use just to fill in a verse it's a space word it's a nothing word.

When the thug grabs Jerzy, he says like, "Jarvis Johnson." Jerzy's passport name, I mean. Opposite of a rugby jersey is a beach bikini a strait jacket a water bed --- YEAH, what about Jack Straight, turn it around it's straitjacket the opposite of rugby Jerzy which turns around to Jerzy Rugby. All *right!* The passport of Jack Straight.

Today, I went up to SF to hang out with M. and then went to the Mondo house for a photo shoot for *Details* magazine. Ken, Alison and me. Rudy Rucker, R.U. Sirius, and Queen Mu. They've always seemed like my old sixties vision of San Francisco, those two, living in the huge California Craftsman Mondo house pile with a valley and a rivulet in the back yard. Mu with a wooden snake and Ken in a frock coat and me with a tasseled velvet throw worn around my legs like a kilt (I was chilly in my shorts, and the idea of being in a Men's fashion magazine in a skirt seemed like good dada fashion.) It felt like being in The Jefferson Airplane, man. It was soothing to be up there, part of a team, also in the same house that I had the Mondo nightmare in, and to these folks a freakout like that is like...*nothing*, no more significant than a funny joke, another knot in the slack, mellow mellow.

September 30, 1992. How the ants got so smart.

It's like the code of the ants has skipped a whole generation of chips.

October 5, 1992. Trying to work on Hacker and the Ants.

Monday. Last night half asleep I kept thinking I was going crazy. I dream a lot about Andy Warhol since I read his *Diaries* every night. Today I went mountain-biking in the empty reservoir, it was so bleak and dry. Not much energy today. I looked at stuff I wrote on the book Saturday night that I'd completely forgotten I wrote. The idea is always to push out into the next scene by any means. Once I get out there then I can make it logical and well-written. I hope I'll have a good writing week.

October 14, 1992 Trip to SF with Sylvia.

I did have a good writing week last week, I finished Chapter Nine. Thursday I went to Fry's to get a new computer. They sold me a 486DX2 50 Mhz with 8 Meg of Ram, big and small floppy drives, a 340 Meg hard drive, a Windows accelerator SuperVGA card, an NEC 4FG monitor and a HPIIP laser printer. I picked it all up on Friday, and it turned out that the DX2 it's only a 50 for moving data over the bus, but it's a 25 for processing, so it was slow. Friday night we went to a party at Georgia's which was fun, and we spent the night at the Holiday Inn and saw the Blue Angles flying over

Aquatic Park on Saturday. Sunday I took the computer back and after four hours I had a 486DX 33, true 33 Mhz speed, and they'll have a speed doubler chip out later this year for like \$400 upgrade to 66 Mhz. Then Sunday night I found out the I'd gotten didn't have the CGTimes font I like to use, so I took the printer back on Tuesday, and traded up to an HPIIIP. The whole cost was about \$4300. I also traded in the keyboard for a softer one.

Tuesday I also went to Maxis, I may do a game for them. Flocking things, or 4D, or the Hollow Earth. They would let me get an advance and royalties which would be great as then I would not be working for anyone.

Now it's back to THE HACKER AND THE ANTS. I think it would be cool to have Tom and Ida save the day.

I forgot to say the other very time-consuming thing with the computer was to get the software moved from my old one to this one, I used the LapLink serial cable transfer, quite slow, so moving the full 200 Meg was the better part of two days, with complications of clean-up and installations.

October 15, 1992. Gearing up for the end of Autodesk.

Thursday. Monday is my last day at Autodesk. I feel nervous about it. I still don't have my new email set up, I can't get either the old modem to work with the new computer, also I don't have my SJSU account set up yet. LeBrun wants to have a lunch at a Brewery on Monday, but that sounds like a bummer.

I bought a new internal modem and talked to the sysop at SJSU. It's closer to working, though I'm not yet really on line. I edited the Yosemite entry and sent it to BOING BOING as my second zip.2 column today.

October 16, 1992. Flensed at Autodesk. Getting my machine fixed.

Friday. I went up to Autodesk and got flensed (whaling term for removing the blubber from a whale). ON the way I hit Fry's Electronics on the Lawrence Expressway off Route 101 in Sunnyvale one more time. My times at Fry's for this machine cycle:

- 1) Thu. Buy machine.
- 2) Fri. Pick up machine.
- 3) Sun. Exchange motherboard and keyboard. Buy cute parts and dice for Iz.
- 4) Tue. Exchange printer. Buy microcassette tape-recorder for press gigs.
- 5) Thu. [Wolf's in L.G.] Get keyboard cable extender and an internal modem.
- 6) Fri. Exchange video card.

So I turned in my machines in the area that used to be Advanced Tech. There were some young kids sitting around laughing in the Cyberia room, one of them was hitting a golf-ball with a club, putting practice, the others looked so happy and relaxed. They were the "Help" group of Information Systems. I got the putting boy to carry in the heavy stuff: the laser printer and the Compaq CPU. "Oh were you the guy who sent the email today? I saw that," he says.

The reason I'd been so computer hyper this week was to get my whole system transferred and finally this morning I had my modem working and emailed a "Good-bye" message to "everyone". I don't have a copy of it handy, because I can't get onto email at Autodesk anymore. But I asked the sysop Susan Kwang to forward it and, hopefully, the "We'll miss you, Rudy," and "Well done, big guy," messages that I expect to reap.

I turned in the machines by bringing them into my office and showing them to the equipment manager. Then to the 3rd floor of the execs' building to meet a junior Autodesk lawyer, who'll let me release the Boppers code.

So then I go to see a woman in "Human Relations". She is very slim. She is packing boxes. She takes me into a conference room full of packing boxes. I sign forms, give her my Autodesk ATT phone credit card, my office key. She is flensing me. The so-called exit interview is a formality where I fill in answers to three questions that nobody will ever read, I keep the answers quite short. We go to see the old babe in charge of stock options. The kid who worked with me at Autodesk at the end, Grendel, shows up at the end of the long hall. "Hey, Rudy! Is that Rudy?" John is freakin and geekin, it's fine to see him. "Hi, John, I'm here with the undertaker." I am being flensed and undertaken, this a subterranean afterworld experience. "Don't call me an undertaker," says the HR woman. I begin to notice how really skinny she is. "Well, that's the job you're doing right now. I'm not saying that's what you *are*. But that's the function you are now performing."

Walking down the low white halls I was thinking THIS IS JUST WHAT YOU'VE BEEN WRITING ABOUT. THIS IS SO GREAT. And this morning when I called the Galaxy 2000 video chip people in the 501 area code they were all Vietnamese, I recognized the accent, the engineer was like, "Yes our chip does have a timing problem and it may drop characters in Windows Terminal." Which has been driving me bananas. But to hear that calm Vinh Vo voice, and he's all "The chip you have is the P5. We have just finished the P8. We have skipped the P6 and the P7. If you can hold on, you can get a P8."

So when I took the Galaxy 2000 Windows Accelerator Board back to Fry's this morning the same salesman gets me who gave me my computer on visit #2, which was a remarkable visit because that day the guy in front of me in line was none other than the WOZ, who had been buying 4 Powerbooks plus \$5000 worth of boards and chips to stuff in them, anyway this morning the guy looks at the Galaxy 2000 Windows Accelerator board that I'm bringing back for a long time. He keeps holding it up and looking at it from different angles. His badge says he's in computer peripherals so he's interested in this kind of thing, and I guess this is the first Galaxy 2000 anyone's ever returned. He's like reading the label in wonder. This morning when I talked to the Vietnamese engineers they said, "Well we made six P8 boards this week, but those are all gone. If you can be patient." Y9707-EX chip no doubt. Forget the hyphen. Y9707EX.

It's such a trip to be here living in the transreal world that I'm really writing about, like talking to the Vietnamese Galaxy 2000 engineer in Fremont and going to Fry's and calling up the kid at SJSU running the Net and getting on Unix with him and going in to be fired in the corridors of Autodesk.

October 21, 1992. Trying to end The Hacker and the Ants.

Wednesday. Feel a little feverish. Every night when I go to sleep and every morning when I wake up, I'm thinking about how to end the book. Today's idea. Roger has some robots building robots, he feels its important because he thinks someday robots can colonize the moon. So this is a vague prequel to SOFTWARE. He has the robot sweatshop on the sealed second floor of the factory.

At the end, personal robots are banned for the public for a two-year moratorium,

but NASA plans to send thirteen of Roger's robots to the Moon, which leads into *Software!*

October 23, 1992. Roger Coolidge.

I just spent the whole morning, three hours maybe, going through my mbox file of all the email messages I saved while at Autodesk, selecting out the good pieces, and saving them into a big file that I would keep for reference, then instead of saving the file I absent-mindedly tried something that crashed and destroyed the document.

I found some good quotes of my friend W. excerpted from his emails. I'd kind of forgotten his perkiness and friendliness, I've been painting too stodgy a picture of Roger Coolidge. His corny little asides and his wonderful scientific prose.

"On sunny days you can see sailboats on the lake and on really clear days you can see the Mont Blanc. The rolling hills of the Jura mountains. Just between you, me and the garbage can. Displayed a negative entropic flow in the thermosetting plastics. There are no unlisted phones in Switzerland. Lots of projects on my plate. Engine-ear."

October 27, 1992. Pushing the nightmare into Hacker and the Ants.

What is the point of having his phreakout vision be of a merged tile-stove, ant, and Mandelbrot set? Just because I saw it, doesn't mean it really fits into the book. Or I could MAKE there be a point, and have a big ant colony under the stove? Yes.

November 3, 1992. Almost done with Hacker and the Ants.

Tuesday. I did four pages yesterday, not bad for a Monday. A guy from Phillip Morris came to see me about some conference in NY this spring. Sylvia and I voted this morning. Now: Focus! Write the big showdown with the ants today!

2:44 PM, I did four pages today, I'm at 81315 words, I'm in the endzone! Go Clinton!

November 5, 1992. Done with Hacker and the Ants

Thursday. 1:40 PM I just finished the book. 267 pages 8,4646 words. Whew! What is the genre I write? Feelgood cyberpunk. Or just feelgood.

November 19, 1992. Hacker and the Ants post-mortem.

There's always an experiential hiatus between thinking I'll never finish and being done. It's not really a hiatus, because it DOES happen, it happened the Thursday two weeks ago when I had them throw the acetone on the plastic ants and light it, and then bailed out and sketched the Epilogue. My feelings right then were not glorious "I reached the peak" feelings, they were more like "Okay, hang in here, do this, do this." And flabby surprise.

I got a lot of good Cal-speak into *The Hacker and the Ants*. I think it's a hell of a book. I got a lot of father/child and man/woman stuff in. Some radical politics a little bit. Cyberspace and a-life out the yang. And loads and loads of California. This is Rudy's picture of California. He moved here seven (6.33 right now) years ago and *this* is his transreal photojournalistic report. I did some of my best transreal sketches of people yet.

January 20, 1993. Revisions for Hacker and the Ants.

So now I'm back into THE HACKER AND THE ANTS, to do the revisions. I'm going to break off the D&D part of Chap 10, Hi Roger, call it Chap 11, The Battle, add detail to it and explanation (what are the plastic ants *for*?) and add an attack of the plastic ants from the stove. Then make the epilogue longer, with maybe another VR trial scene, this one by Stu, and call it Chap 12, Rocks In My Head --- this chap title if I keep the very last sentence.

February 9, 1993. Time cover story on Cyberpunk.

I finished the second version of THE HACKER AND THE ANTS on Wednesday, Jan 27, (adding about 6,000 words,) and mailed it in on I guess the 28, Thu, when I also visited Koza, a genetic programming guy teaching an alife course at Stanford. TIME had a cover story on Cyperpunk! in the Feb 8, 1993 issue.

The world is ready for the Hacke rand the Ants.