

Readercon 15
A convention report by Evelyn C. Leeper
Copyright 2003 by Evelyn C. Leeper

Table of Contents:

- | ["Understanding" Superhuman Intelligence](#)
- | [Offbeat!](#)
- | [Adventures in Other Dimensions](#)
- | [SF's Greatest Generation](#)
- | [Howard Waldrop Reads](#)
- | [Mathematics and Science Fiction](#)
- | [The Fiction of Howard Waldrop](#)
- | [The Golem](#)
- | [SF: For Aficionados Only?](#)
- | [The Death and Rebirth of SF](#)
- | [Hal Clement Interviewed](#)
- | [Rudy Rucker Guest of Honor Speech](#)
- | [Howard Waldrop Interviewed](#)
- | [Con Suite](#)
- | [The Golden Age of Science Fiction is Now](#)
- | [The Career of Rudy Rucker](#)
- | [Ambition](#)
- | [Atomic Power and the Singularity: Great White Trope](#)
- | [Miscellaneous](#)

Readercon 15 was held July 11-13 in Burlington, Massachusetts. We last attended Readercon in 1997 (Readercon 9), so a few comparisons may be in order.

First of all, the dates were the same. Not exactly earth-shaking, but an interesting coincidence.

This location is supposedly easier to get to via public transit, but I didn't hear any reports one way or another.

Panels at Readercon remain more stable than at other conventions (i.e., there are fewer panelists changes or no-shows), but not absolutely so. Six years ago, I wrote, "For the panels, the panelists were in a semi-circle around a coffee table. Unfortunately, this meant there really wasn't any place convenient to put the name cards." Well, six years later, it's still true. Get a clue, folks--people who are not in the front row of the audience still want to know who everyone is. Maybe music stands? And six people on one panel is really pushing the limits of size.

The Bookshop (what at other conventions would be called the Dealers Room) is no longer just Boskone's Dealers Room minus the non-book tables. Dealers who don't go to Boskone were there also. Kate bought a copy of S. Fowler Wright's "The Deluge" there, and Mark told her there was a prequel. "Really?" "Yes--'Moi'."

There was a restaurant guide, but it wasn't given out at the registration table. One had to know to go to information for it. (Well, I suppose that's probably obvious to some people, but I guess I'm just used to having one handed to me.)

And just as six years ago (in a different hotel), the panel rooms were really cold at the start of the convention. (Of course, outside was also colder than normal for July; it was around 64 degrees Saturday morning when we went out for breakfast.)

"Understanding" Superhuman Intelligence

Friday, 3PM

Brian Attebery (mod), Stepan Chapman, James Alan Gardner, Matt Jarpe, Graham Sleight

Description: "It's generally acknowledged that a story cannot depict intelligence far above the human level, since the author is only human. We notice that this observation has not kept authors (including Tom Disch, Ted Chiang, and Charles Stross) from trying anyway. What techniques have these authors used? How successful have they been? How will these stories change as neuroscience evolves?"

I arrived at this a bit late (we got side-tracked at Upper Story Books in Lexington), so missed the introductions. Someone was saying that there was really no need for using the cliché of coldness and lack of emotion to depict a super-intelligent character.

Attebery said that authors often use the "fans are slans" approach, to some extent catering to the reader's feeling of superiority. Authors using this technique included A. E. Van Vogt and Stanley Weinbaum. Gardner said that these are basically wish-fulfillment stories. Sleight added that the super-intelligent in these and other stories are often shown as lonely and without relationships.

Somewhat afield, Chapman asked if it was possible for someone to become hyper-intelligent on one's own, as is often shown in the books. ("Hyper-intelligent" and "super-intelligent" were used interchangeably on this panel.) He didn't think so, saying hyper-intelligence is useless if one cannot communicate with someone else on that level.

Gardner said that in one story of super-intelligence he gave the protagonist "a Buddhist clarity of her own bullsh*t." (This is edited to get past nanny filters.) He said, however, that the requirements of a story may dictate some of these assumptions.

Attebery noted that some tales of super-intelligence as cautionary tales (e.g., Ted Chiang's "Understand").

Sleight said it was time to "name names" and said one of the classics of super-intelligence was Theodore Sturgeon's "More Than Human" (which certainly showed no lack of feeling).

An audience member named Olaf Stapledon's "Odd John", but Chapman felt that in it, John's characteristics are not due to hyper-intelligence, but to a lack of human preconceptions.

Gardner said that this whole idea that we use only five percent of our brain is false, and that a lot more is used, but frequently it is in redundancies and shortcuts. As he put it, the brain has all sorts of ways of "cheating" to speed up its processing; would hyper-intelligence just mean that it creates more ways of cheating? Attebery explained this further, saying that various optical illusions demonstrate some of the ways the brain "cheats" by creating images that are outside the normal range and hence the brain gets confused dealing with them (e.g. some of the foreground-background problems, or some of M. C. Escher's drawings).

Eric Van (and others) in the audience suggested that the panel was talking about "hyper-intelligence" as if there were only one kind, but there are probably many different kinds of hyper-intelligence.

Someone suggested that a deficit of affect (such as in autism) means that decisions would take longer, and that the reverse of this might lead to hyper-intelligence. Gardner described autism as "a flaky barrier between consciousness and subconsciousness" and those who have it have "a whole lot of extra RAM and crappy ROM".

Attebery said that there seemed to be a gender component as well: the hyper-intelligent are mostly

male characters written by mostly male authors. (Someone in the audience immediately shouted out "Susan Calvin.") He thought this might be connected to why they are portrayed as unemotional. In response to this whole "hyper-intelligent as unemotional" notion, someone in the audience said that if you read about the Manhattan Project, you discover that almost all the problems there were emotional rather than technical.

He said they also seemed usually to have a lack of humor, which he found odd. However, what he said was, "Intelligent people aren't always funny, but funny people are almost intelligent." This does not logically imply anything about what hyper-intelligent people would be.

Someone in the audience said that a lot of this is based on a cultural perception of what intelligence is. Gardner disagreed, saying that intelligence was not completely a cultural construct. There are universals. In particular, the ability to perceive emotions in others is inherent and cross-cultural, even though the perceived value of this may vary between cultures.

Someone suggested that what is needed is super-wisdom rather than super-intelligence, and cited Thomas M. Disch's "Camp Concentration".

Gardner thought super-intelligence might be a super-ability to predict. In Samuel R. Delany's "Tower Trilogy" a super-intelligent character can predict whether a coin toss will come up heads or tails. Gardner pointed out that a five-year-old can look at traffic and predict what it is doing well enough to be able to cross a street, but dogs cannot. It's that "paradigm of prediction" that makes the difference.

Julianne Chatelain (in the audience) asked the other side of the super-intelligent character story: can the reader understand it if it's an accurate portrayal?

Jarpe said that there seem to be two approaches to the super-intelligent character: he is us, or he is an evil genius. Attebery said he could also be metaphoric, as in C. L. Moore and Henry Kuttner's "Children's Hour" (under the pseudonym Lawrence O'Donnell).

Someone said that there seemed to be a progression from heroes and superheroes who had strength when strength mattered, to characters who have super-intelligence when intelligence matters.

Regarding emotions, someone in the audience noted that Charly in "Flowers for Algernon" has emotional as well as intellectual growth, but it isn't as well extrapolated. What would hyper-emotionality be? Someone else said that religious leaders think that emotional maturity is losing the negative and emphasizing the positive. (I think that's a bit simplistic, and would argue in addition that what is negative and what is positive varies wildly among religions.) Sleight said that this idea is carried through in the "Star Wars" films, where the Jedi achieve the "proper" emotions.

Jarpe said that Ken MacLeod's work seems to stress super-intelligence, where the "Fast Folk" say (in effect), "If you're not using nuclei or writing code, you're just bending space." He said that this series also has its evil genius.

Someone in the audience said a somewhat more ambiguous evil genius was Frank M. Robinson's "The Power" (made into a film with George Hamilton and Michael Rennie).

Chapman said that we keep talking about "better intelligence and better emotions", but asked, "What's 'better'?"

Other works mentioned included John Brunner's "The Stone That Never Came Down", Frank Herbert's "Dune" and George Turner's "Brain Child".

(Mark described the noises made by the testing of the sound system at this panel as " noises that sounded like Karlheinz Stockhausen played by a punk rock band.")

Offbeat!

Friday, 4PM

Michael Cisco, Paul Di Filippo, Theodora Goss, Rudy Rucker, Eric Van (mod), Gene Wolfe

Description: "It's a bit like pornography--it's hard to say just what we mean when we say a story or a writer is "offbeat," but we all know it when we see it. Just what are the qualities that make a story offbeat, beyond the requisite denial or circumvention of expectation? Can a writer choose to be offbeat for a single story, or does being truly and effectively offbeat derive from something deeper in a writer's psyche? Some writers are always offbeat in the same way, but the true masters (like Guest of Honor Howard Waldrop) are offbeat in a different way each time--which seems to be a formidable feat. Are there conscious methods at work here, or is it just something you're born with?"

Paul Di Filippo was asked about the correct pronunciation of his name. "Any pronunciation as long as it's spelled right on the check."

Van asked the panelists, "Are you a writer of offbeat fiction, and sometimes or always?" Cisco said, "It depends, but my stuff is received as being unusual." Di Filippo said that you had to posit a norm first before he could answer that, but given all that, "Yes." Goss said, "I've been told I'm offbeat often as not." She felt that her Eastern European background gave her a different feeling of what was offbeat than those used to American or British fiction. Kafka might agree.

Rucker said that if you define mainstream as something that sells more than 100,000 copies, "certainly I'm offbeat in that sense." Science fiction is, he explained, "almost this Talmudic thing where you're doing new twists on old twists and so on," and hence is often difficult to understand or follow. Rucker later said, "I've never been one to follow the herd." His inspirations were the Beats and Thomas Pynchon, and, as he said, "certainly, the Beats were offbeat."

Wolfe said he was going to say he was offbeat, but decided "I'm just an on-beat writer on the wrong track." One of his more offbeat stories, "How I Lost the Second World War and Helped Turn Back the German Invasion", was written when Ben Bova called him up with a description of a painting by Kelly Freas and asked if he could write a story to go with it. He later found out that Bova had been calling everyone on the SFWA roster with the same question--alphabetically! But he was offbeat only sometimes, saying, "Bald guys have lots of hats."

(I found myself wondering why Hitler selling a Volkswagen to Churchill is considered offbeat, but aliens invading Earth during World War II isn't?)

Di Filippo said that "quirky" is a synonym often used instead of "offbeat." "Maybe offbeat is like genius," he mused, and should not be self-applied.

Cisco said he would elaborate by saying he had a taste for the little-known, the obscure, and the strange, and what might be called a "daring sensibility."

Wolfe asked if a story where everyone was dead and their minds were in hummingbirds would be considered offbeat. (This is apparently an actual story, Patrick O'Leary's "The Apostle Birds".) Cisco said it depends on how it was done. Science fiction, he contended, was about things or about affects.

Rudy Rucker said he was thinking of writing a story with a talking dildo called Rev. Jerry Falwell.

Van said it might be worthwhile to look at the origin of the term "offbeat." It comes from music, from syncopation, and consists of setting up an expectation and then foiling it. Cisco said further that a deliberate violation of expectations was inert, and it needed to be spontaneous.

Goss felt that even the initial conditions could be offbeat (that is, there is no setting up of expectations first). Di Filippo gave the example of Adam Roberts's "On", in which the gravity field has shifted ninety degrees. The premise is offbeat, but what follows doesn't violate any expectations. Another example given was Christopher Priest's "Inverted World". (This sounds a bit like the same genre as Richard Garfinkle's "Celestial Matters", in which the Aristotelian view of the universe is the accurate one.) But Van and Goss agreed that here the strange premise versus the normalcy of the development created the estrangement.

Wolfe cited a Kim Stanley Robinson story about a body in a bathtub falling through a ceiling, which made me wonder if that's where the screenwriter for "Moulin Rouge" got the idea for the narcoleptic Argentinian falling through the ceiling. (I think the Robinson story is "The Storm", but I haven't verified this.)

Someone in the audience thought there was a correlation between the offbeat and the funny, but Rucker said that this was not necessarily true. Goss said that the anthology series "Leviathan" (being published by Ministry of Whimsy Press) was offbeat, but not funny. Offbeat includes surrealism, which is rarely funny.

Someone else in audience suggested that the offbeat also includes the magnification of ordinary things, such as in the works of Jorge Luis Borges, Mikhail Bulgakov, and Franz Kafka.

(Is Martin Amis's "Time's Arrow" more offbeat than Philip K. Dick's "Counter-Clock World"? Is the Dick story funnier?)

Adventures in Other Dimensions

Friday, 6PM

Michael A. Burstein, Kurt Engfehr, Paul Levinson (mod), Rudy Rucker

Description: "Radical shifts in perspective can be gained from imagined worlds having a different -- usually greater -- number of spatial dimensions than our own boring three. Yet such stories, centering on the perception and physics of higher dimensions, are rare. Too hard to write? Asking too much of the reader (but surely not of Readercon regulars)? Come help us strike out in new dimensions."

Rucker said a recent book of his was "Spaceland", which was a re-imagining of Edwin Abbott's "Flatland", with Joe Cube as the main character. One of his major influences was the Groff Conklin anthology "Science Fiction Adventures in Dimension".

Engfehr works mostly in film. He produced "Bowling for Columbine" and is working on a script about parallel universes.

Burstein pointed out that "Flatland" was really intended as social commentary, but it's hard to see the satire when we've lost the historical context. For example, at times Abbott can appear misogynistic, when he is actually trying to promote more equality for women. There was also another "sequel," Burstein said: Dionys Burger's "Sphereland".

Rucker said that one could see the fourth dimension as a path to enlightenment, and as looking at things from a higher perspective.

Charles Howard Hinton also wrote early on about the fourth dimension. (He invented Hinton cubes, which Rucker compared to Rubik's cubes, but with 91 parts instead of 27.) More recent pieces include Miles J. Breuer's stories "The Appendix and the Spectacles" and "The Captured Cross-Section".

Rucker pointed out that even H. P. Lovecraft used the fourth dimension, though only to make a scene "super-creepy or "super-scary," such as having doors open at impossible angles.

Rucker also quoted from "The Further Adventures of A. Square", but warned, "When you take advice from aliens, sometimes they don't have your best interests at heart."

He also said that in order to see a four-dimension world, you would need a three-dimensional retina, rather than our two-dimensional one.

Burstein said that one of the classics, Robert A. Heinlein's "...And He Build a Crooked House", is accurate spatially in terms of which rooms connect where.

Engfehr said that Abbott's ideas have shown up on the screen in Chuck Jones's Academy Award-winning "The Dot and the Line" (a.k.a., "The Dot and the Line: A Romance in Lower Mathematics"). (The story for that, by the way, is by Norman Juster, author of "The Phantom Tollbooth".)

Levinson suggested that what we call "the fourth dimension," time, may not exist in any real sense, or at least that this is some people's theory.

Another sequel to Abbott, "Planiverse" by A. K. Dewdney, attempts to bring rigor to the biology and other aspects of "Flatland". As Burstein pointed out, as it stood, the Flatlanders couldn't have a digestive tract, because that would have split them into two disconnected pieces, so Dewdney had to work out a way around this.

Levinson said that another work using the fourth dimension was "Harold and the Purple Crayon" by Crockett Johnson. And of course there is the classic "A Wrinkle in Time" by Madeleine L'Engle.

Someone in the audience claimed that H. G. Wells used time as a fourth spatial dimension perpendicular to the other three in "The Time Machine". Rucker said that Wells also used the fourth dimension in "The Plattner Story", in which things are turned into their mirror images by being flipped over in the fourth dimension.

Burstein said that since we were in Massachusetts we had to mention "A Subway Named Moebius" by A. J. Deutsch. Levinson said he could remember a cartoon from the 1950s in which a similarly complex highway clover-leaf folded into itself and trapped a motorist there. Someone suggested this could happen with the Big Dig.

Someone in the audience asked how rich the idea of a fourth spatial dimension really was. Levinson said that if you postulate parallel universes, it's very rich, and Rucker said, "I don't think we've really scratched the surface." And the ideas are connected if one thinks of Flatlands stacked like pages in a book, offset into the third dimension. There could be similar three-dimensional universes stacked into the fourth dimension.

Burstein recommended the non-fiction book "The Elegant Universe: Superstrings, Hidden Dimensions, and the Quest for the Ultimate Theory" by Brian Greene. He asked if Flatland has a "tiny" third dimension, or a third dimension equal in size to that of the universe itself? Burstein claimed we are curved into a fourth dimension but because it's the size of the universe we can't determine or detect it.

SF's Greatest Generation

Friday, 7PM

Hal Clement, Jeff Hecht, Barry N. Malzberg, Andrew I. Porter (mod), Allen Steele

Description: "World War II was a dramatic time for sf. Isaac Asimov, James Blish, Leigh Brackett, Hal Clement, Robert A. Heinlein, Murray Leinster, A.E. Van Vogt -- many great careers got started around then. The number of sf magazines reached its all-time high. And John W. Campbell got investigated by the government when he published a story about a U-235 fission bomb. How did the war affect what got written, and how did what was written affect the conduct of the war and its aftermath?"

Clement, as the only member of the panel who was around during World War II, said that his credentials included having a story being rejected by John W. Campbell in 1940, but then he had the next one accepted in 1941. During World War II he was otherwise occupied. (He told about how, after the Norden Bombsight was installed in the planes, the bombardier was given a side-arm with instructions to fire it into the bombsight to destroy it if it looked as though the plane was going down.)

Malzberg said he was born in 1939, and noted that Campbell died exactly thirty years ago today. Steele was born in 1958, but said he would have enjoyed writing for Campbell's "Astounding" and other 1940s magazines. He felt that were an era where authors crossed genre lines more easily, and were writing for a more general audience. Malzberg, however, disagreed--rather strongly.

Hecht was born in 1947, and had his first story to "Astounding" rejected with a note that the magazine was in flux because Campbell had just died. Porter was born in 1946.

Malzberg said of the flowering of science fiction around World War II that "it was Campbell time." And what brought authors into the field was Campbell. He expanded on his disagreement with Steele's "crossing-genre" statement, saying that with the exception of Frederic Brown, science fiction writers were science fiction writers who occasionally wrote other stuff. Sturgeon--given as an example by Steele of a science fiction writer who was also a Western writer--wrote only seven Western stories, according to Malzberg.

Steele countered that Heinlein had written confession stories, which eventually appeared in his collections "Requiem" and "Expanded Universe". And Hubbard wrote lots outside the field--though even Steele had to say, "Okay, he's an anomaly." (Later, someone in the audience said that what Heinlein wrote were not, strictly speaking, confessionals, but young adult fiction.)

Porter suggested that maybe people used science fiction to write what they couldn't write elsewhere. This reminded Steele of a professor he knew who had this theory that the science fiction writers (such as Asimov and Heinlein) during the war communicated in code in their stories. Malzberg said this was crazy, because these people were getting together at least once a month socially, and hardly needed to communicate in code in their stories.

Malzberg claimed that when Campbell brought in all the newer writers, he dumped all the older ones. Campbell wanted only new authors he could train, and only Jack Williamson, Murray Leinster, and Clifford D. Simak made the jump from the pre-Campbell "Astounding" to the Campbellian one. Alan Steele disagreed and ended up betting Barry Malzberg \$5 that Nat Schachner was still writing in "Astounding" in the late 1940s. (Not to keep you in suspense, Malzberg wins--Schachner's last appearance was November 1941.)

Returning to Williamson, Steele said that Williamson was constantly re-inventing himself

throughout his career, as was Poul Anderson.

Steele said that one big difference between the 1940s and now was that one could survive in the 1940s as a writer of short fiction, but that one can't now. This led, of course, to good writers being far more willing to write short fiction for the magazines.

Clement said that another influence was the war itself. There was a technology boom after the V-2 and the atomic bomb that made science fiction more acceptable. Hecht said that the whole technology establishment after the war helped support science fiction and raise a generation who were familiar with it. Steele claimed that Frank Borman in the Christmas Eve broadcast from Apollo 8 referred to "the green hills of earth" (referencing the Heinlein). But what he actually said was, "And from the crew of the Apollo 8, we close with good night, a merry Christmas, and God bless all of you, all of you on the good earth." (I don't think he was referencing Pearl Buck.)

Malzberg said that another (negative) effect of World War II was that it shortened the life of some authors (and undoubtedly ended others). For example, C. M. Kornbluth spent the Battle of the Bulge hauling a 50-caliber machine gun around, which led to his health problems that eventually ended his life. But one positive thing that did happen was that when Campbell's major authors became unavailable during the war, he went out and found new authors, that he became major.

Hecht thought that one reason that the authors Campbell had turned out to be great authors was that Campbell was willing to work with them, not just accept or reject stories. Malzberg said that other editors of the time were as good (I think he mentioned Frederik Pohl and Horace Gold), but they paid less.

I asked if the existence of science fiction magazines starting in 1926 didn't lead to the generation that grew up with them being ready to write science fiction around the time of World War II. Malzberg said that this was Asimov's theory as well.

Someone mentioned a Jack Vance story for some reason, and Malzberg cited from memory the exact issue in which it appeared, leading Steele to say, "I'm beginning to regret making this bet."

Someone in the audience closed by mentioning Paul Di Filippo's "Campbell's World", an alternate history in which *Joseph* Campbell edits "Astounding", but that would be another panel--and another world entirely.

**Howard Waldrop Reads
Friday, 8PM**

Waldrop apologized for his glasses, saying, "I broke my two-dollar pair, so I'm using my dollar-fifty pair."

He read "The Other Real World", set during the Cuban Missile Crisis and introduced by Skeeter Davis's "End of the World".

**Mathematics and Science Fiction
Saturday, 10AM**

**Catherine Asaro, Michael A. Burstein, Donald Kingsbury, Rudy Rucker (mod), Diana Reed
Slattery**

Description: "A discussion touching on the very particular, specialized character of the mathematical subgenre of sf. By its very nature as a cousin of hard science, sf affords a unique fictional outlet for mathematical ideas and themes. What are some successful examples, old and new? How well can technical arcana be integrated (no pun intended) into good storytelling? And is truly outre mathematics actually explicable in this medium?"

Credentials ranged from Kingsbury's, who taught mathematics at McGill University for thirty years, to Slattery's, who said she was not a mathematician, but she reads about it. She is particularly interested in the fourth dimension and recursive structures. She also said that fractals had changed how she looked at and thought about things.

Burstein said that he was a physicist, but had read Rucker, Martin Gardner, and George Gamow. He said he had a "killer title" for a mathematical story (which I will not give here in case he decides to use it). However, someone in the audience suggested another: "Tropic of Calculus".

Rucker said his background in mathematical science fiction was from reading anthologies such as Clifton Fadiman's "Fantasia Mathematica" and has edited an anthology of his own, "Mathenauts: Tales of Mathematical Wonder".

Rucker said that if one considers mathematics as a logical system from which one can deduce things, this could easily lead to science fiction ideas. He mentioned Paul Di Filippo's "Fuzzy Dice" as an example of using alternate worlds, but also talked about the more general areas of the fourth dimension, infinity, and fractals.

Asaro said that Greg Egan's "Wang's Carpets", for example, was based on the real mathematical construct known as Wang's tiles. And currently she's working on a book called "Spherical Harmonics" in which spatial coordinates are actually eigenfunctions.

Kingsbury talked at some length about his "Psychohistorical Crisis", saying his objection to psychohistory was not just because of chaos theory and the butterfly effect, but also that the whole set-up required a loop of prediction, observation, control, prediction, etc. Discussing simple versus complicated predictions, Donald Kingsbury said, "If you're predicting galactic history for a thousand years, that is complicated." This eventually drifted off the topic of mathematics and into political theory, at which point Rucker brought the discussion back to math.

Slattery said that we needed to mention Lewis Carroll, who used a lot of logic puzzles and recursive systems in his fiction. She felt that his views were also reflected in the real world--we impose a window of linearity on the world, but the world is more mazelike, recursive, and multi-dimensional than that. This led Rucker to say, "You must like Douglas Hofstadter a lot," to which Slattery replied, "Not as much as Borges."

Slattery also said that in physics one finds a lot of "mini science fiction stories" posed as thought experiments, such as Schroedinger's Cat and Maxwell's Demon.

Michael Burstein lamented, "So much of mathematics is intractable. It's difficult to find the appropriate isomorphism to translate it into a story."

There is also the question of how much information must be included in a story, and how much can be assumed. Often the average reader doesn't understand the underlying math, or physics. For the latter, Burstein noted that Hugh Everett's "Many Worlds" theory specifically prohibits inter-world travel, yet authors use such travel all the time to get a story going. (See <http://www.hedweb.com/everett/everett.htm> for more details on this.)

Rucker said that the problem of the "infodump" was compounded with the question of whether the

reader would understand the infodump. Of course, he also said that Bruce Sterling told him that he "like it best when I was talking about things he didn't understand."

Mention was again made of A. J. Deutsch's "A Subway Named Moebius".

A stranger one was "The Tale of Happytown", which I will attempt to summarize. As I recall, there is someone who has the power to destroy the world with some gas that he can release. Whether he releases it depends on the outcome of the dice he rolls. He starts by rolling them at a fixed interval (every 24 hours?), but if he gets a postcard that day, he extends that period by an hour. I guess the idea was that interconnectedness is what keeps the world going, but it's also an exercise in statistics. (This maybe be an as-yet unpublished story, since I can't find any reference to it.)

And of course, along those lines there's Jorge Luis Borges's "The Lottery of Babylon".

Rucker felt that one advantage of mathematics in science fiction was the ability to use "really cool buzzwords": "Jump into the wormhole, and you're in the Planck brane." Currently he's working on something involving Hilbert space and "renormalization storms", with something involving the concept that during renormalization storms, if you don't have a certain minimum of people believing in you, you cease to exist. Rucker also talked about "decoherence"--when someone opens the box you're in, you have to decide if you're dead or alive. "That's why I never answer phone questionnaires," he said.

Someone in the audience suggested Ted Chiang's "Division by Zero", in which mathematics is not just incomplete, but actually inconsistent. Rucker said that this was Whitmanesque: "Do I contradict myself? Very well then, I contradict myself."

Someone else in the audience asked if it is possible than we are living in a simulation, but someone else pointed out that this is a very old idea. Rucker interjected, however, that it was new in Hollywood. Someone mentioned "The Matrix", and Rudy Rucker responded, "Okay, let's not get into the ****ing Matrix. Let's talk about real mathematics."

Asaro said that as far as explanations go, she tends not to describe the mathematics because it's so ingrained that she doesn't think about it. And Kingsbury said that when a five-year-old avoids a bus while crossing a street, she is in effect solving a differential equation, but could never explain it.

Regarding the "expository lump", Catherine Asaro said, "Exposition in science fiction is its own art."

At the end of the panel, Burstein said, "I have an exact description of mathematics in science fiction, but there isn't enough time left in this panel to contain it."

(As far as story ideas go, I would think that the "infinite hotel" holds some promise.)

(Mark Leeper compiled a bibliography of mathematical science fiction for a panel at Millennium Philcon; it can be found at http://www.geocities.com/markleeper/math_sf.htm.)

**The Fiction of Howard Waldrop
Saturday, 11AM**

Brian Attebery, F. Brett Cox, Ken Houghton (mod), Elspeth Potter, Graham Sleight

Description: "Modern science fiction seems dominated by novels, but a few writers still build their careers on short stories. Howard Waldrop is known for taking years to craft his exquisite stories. They are original to a degree rarely approached by his peers, and formidably researched, with

background detail worthy of a novel. Whether tracing the alternate history of airpower in the Civil and Indian Wars, or the possible survival of the dodo, or the fate of one who loves the cinema too well, Waldrop brings us stories no one could improve upon."

Houghton began by asking, "Is Howard Waldrop a genius? And will he follow Philip K. Dick [into academic respectability]?"

Attebery first described Waldrop as "a writer with the care of Flaubert" but who uses old comics and 1930s movies as sources, and then answered the questions with, "Yes, but no."

Cox addressed Dick's popularity, which he found strange. He said that Frederick Jameson claimed that he read Dick but not Sturgeon because, "Dick was a genius and Sturgeon wasn't." In any case, Dick was a novelist, and Cox said, "The academy privileges the novelist over the writer of short stories." However, he said that Michael Chabon's Pulitzer Prize for "The Amazing Adventures of Kavalier & Clay" does validate the use of comics and similar popular culture materials as sources, as does David Wallace's "Infinite Jest".

Sleight suggested that this could be the beginning of the "Let's Make Howard Waldrop as Famous as He Ought To Be" Society. To which Cox added, "And as rich."

Potter felt that the problem (?) with Waldrop is that "He's too good. He's too slick." She described Waldrop as "a writer's writer," and "very postmodern."

Houghton then asked, "Is Howard the quintessential pessimist of the late 20th and early 21st century?" Attebery saw the sense of this, saying that all of Waldrop's stories deal with disasters caused by the best of intentions. The 20th century, Houghton continued, is the "mediated century"--everything comes to us filtered through the media. Dick wrote about this and about slippage and paranoia, which fit perfectly in with the attitudes of the 1990s, hence his popularity.

Sleight quoted the line from "Do Ya, Do Ya Wanna Dance?": "There are terrible disasters in history, and there are always great catastrophes just waiting to happen." He also commiserated with Waldrop that "fishing has gone downhill since the yuppies got in there and ruined it," but someone else claimed that it was just fishing equipment that has gone downhill.

Potter said that Waldrop's specialty was the "synthesis of seemingly wildly disparate historical facts and events." Cox said that it wasn't just A and B, but there was always a third event, or even more. Potter agreed, and compared this to an alloy of metals, where you mix A and B and C and get bronze. Sleight gave the example of the Waldrop story with the three Marlowes of history in it. (However, I can't seem to locate such a story; the three would be Christopher, Philip, and ? For that matter, bronze is only from two elements, tin and copper, as well.)

Houghton asked, "Is Howard Waldrop too ahead of his time?" He suggested that people who read "Thirty Seconds over Broadway" now may end up thinking that it was a Michael Chabon rip-off, not realizing that it predated Chabon's book by years. Cox asked whether "O Brother, Where Art Thou?" was inspired by "A Dozen Tough Jobs", but someone noted that Waldrop was copying earlier works as well.

Cox felt that the theme of Waldrop's work is, "Yesterday could have been different. Today may not be what it seems. Tomorrow will be different in ways we don't expect."

Asaro felt that Waldrop had a lot in common with such writers as R. A. Lafferty, Carol Emshwiller, Jonathan Lethem, and Michael Chabon, not that his writing was similar to any of them, but that they were all unique voices. (Something about a set of elements who are similar in that they are all different sounds very odd.)

[I had to leave this early to go to the talk on the golem. It's so rare that there is a talk on the golem at a convention that I couldn't miss it.]

The Golem: Hero with Feet (and everything else) of Clay
Saturday, 11:30AM
Faye Ringel

Description: "The past five years have seen the Golem emerge from the Ghetto of Jewish legend and the genres of the fantastic to mainstream fame. The success of Pete Hamill's *Snow in August* and Michael Chabon's *The Amazing Adventures of Kavalier and Clay* may reflect increased popular interest in Kabbalah in general as well as a quest for heroes in unlikely places. The Golem, once seen as monster, perhaps even as the origin of Frankenstein's creature, is now a superhero, defender of Jews and even some Gentiles. As part of her continuing research into modern medievalism, Ringel will place the return of the Golem in this context. Attendees are welcome to offer more examples of the Golem in various media."

Ringel began by saying that this was about the golem, not Gollum, and was about the use (and abuse) of Kaballah in supernatural fiction.

Ringel thought that the recent interest in the golem, the Hulk, etc., might indicate "a tropism for large bulky guys."

Traditionally, Ringel said, the emphasis and point of view was on the creator, but in recent years it has moved to the creature, and she hoped to explore that shift.

Ringel spent some time explaining the Kaballah and the origins of the golem. (This was a mistake, I think, since there were only a few people in the audience who were unfamiliar with them, and she had only thirty minutes total.) The Kaballah was "Received Tradition"--either a set of 13th century texts, or truths revealed to Moses and passed down as an oral tradition, depending on your beliefs. The aspect of it that is most pertinent here is the idea of the manipulation of words to do magic, in this case, to create life.

Ringel says that she now sees a lot of "New Age Medievalism" in the current interest in the Kaballah. But this interest is not entirely new; it started in the 16th century, with rabbis debating such questions as whether a golem can count in a minyan.

Though the classic golem story involves Rabbi Judah Loew, Loew himself never claimed to have made a golem. But about a hundred years ago, Yehuda Rosenberg claimed to have an undiscovered manuscript of Loew's son-in-law, and from this sprang the legend. This is available in the "Great Tales of Jewish Fantasy and the Occult" edited by Joachim Neugroschel. (This book may have also appeared under a slightly different name as well, but it is *not* the "Treasury of Jewish Folklore" edited by Nathan Ausubel--not that that isn't a good book as well.)

The golem stories of the 19th century were the first ones to make the golem the protector of the ghetto, particularly against the blood libel. This is probably because during the 19th century, the blood libel was revived in many places, and there was a need for a protector, even if only a mythical one. The story of Rabbi Loew said that the golem was formed from the clay of the Moldau, that the golem was named Yossel, and that he was mute. (If you want more details, Ringel said that Bari Wood's golem novel, "The Tribe", has forty pages of "infodump.")

Ringel mentioned a few recent novels involving the golem: Pete Hamill's "Snow in August", Michael Chabon's "The Amazing Adventures of Kavalier & Clay", and Frances Sherwood's "Book

of Splendor". (I don't think it at all coincidental, by the way, that Sherwood's previous book, "Vindication", dealt with Mary Shelley, the author of "Frankenstein".)

(Chabon has said that he thinks of Superman as a very Jewish figure--"Only a Jew would pick a name like Clark Kent.")

Greg Feeley noted that David Brin's latest book, "Kiln People", has the golem as a copy of the creator, so there is less distinction between creation and creator than one usually finds.

Someone asked if there are other traditional golem stories other than that of Prague. The answer is yes, though they are (obviously) not as well known.

Someone suggested that Pinocchio and Data were variations on the golem story.

There is apparently a website on how to build a golem. A URL was not given.

A variety of stories were named: "The Golem" by Avram Davidson, "The Golems of Gotham" by Thane Rosenbaum, "Feet of Clay" by Terry Pratchett, "Age of Obsidian" in the "Justice League of America" comic books, and a graphic novel about a baseball player in the Star of David Baseball Club called a golem in "The Golem's Mighty Swing" by James Sturm. Surprisingly, neither of Lisa Goldstein's golem books--"The Red Magician" or "The Alchemist's Door"--were mentioned. (Mark Leeper has an article listing other books, plays, and movies about the golem at <http://www.geocities.com/markleeper/golem.htm>. There's even an opera.)

**For Aficionados Only: Has SF Become Too Specialized?
Saturday, 1PM**

Thomas A. Easton, Scott Edelman, Rosemary Kirstein, Fred Lerner (mod), Barry N. Malzberg, Allen Steele

Description: "The level of technical accomplishment today is remarkable. A run-of-the-mill issue of Asimov's is an astonishment. . . . [it] has outreached the capacity of the audience to follow. It is so sophisticated, so difficult, I don't see how anyone without a good reading background in science fiction could read that magazine with any pleasure today.' -- Barry Malzberg, interviewed in Locus. Assuming Malzberg is right, is this a sign that sf editors are carving out a more specialized, evolved product than ever before -- a phenomenon reminiscent of the late history of jazz -- or that the authors are simply that much older, better read, and more accomplished? Is such artistic achievement simply good news for jaded readers, or does it come at a high cost in accessibility, and does it represent a kind of inbreeding that could be dangerous for the future of the field?"

(Once again, six panelists is really too many.)

Lerner asked Malzberg if what he was referring to was what Samuel R. Delany talked about regarding reading protocols. But Malzberg meant something else, that science fiction has passed the level of most readers. Was it applicable to other genres? Malzberg didn't think so--it wasn't true in mysteries, and the Western genre has pretty much perished. (However, in the panel "The Death and Rebirth of Science Fiction" this demise was disputed.)

Rosemary Kirstein says when she tells people she is a science fiction writer, she gets one of two responses: "I can't read that; it's too hard," or "I can't read that; it's for kids." She noted the basic contradiction, but agreed that it is often perceived as beyond average comprehension. One problem, she said, was that in realistic fiction one understands the universe in which it takes place--our own universe--but in science fiction, the reader needs to assemble the universe of the book.

Easton asked what kind of technical sophistication Malzberg was saying was needed: scientific, stylistic, or what?

Malzberg said that in fact it was all types of sophistication being demanded. As the stories in "Asimov's" have gotten better (stylistically), Malzberg said, the sales of "Asimov's" have declined, from 60,000 in 1985 to 27,000 in 2003. Easton responded that "Analog" has seen the same pattern, and didn't think that is because the stories have gotten stylistically more sophisticated. Rather, Easton thought it is a trend in the entire industry. Malzberg disagreed.

Easton said he did see a decline in accessibility to younger readers due to the adoption of more general, modern themes. For example, a lot of recent stories deal with the problems of aging, not likely to draw in a lot of teenage readers.

Malzberg felt that stories such as Theodore Sturgeon's "More Than Human", Clifford D. Simak's "City", and Alfred Bester's "The Demolished Man" dealt with these same themes, and were accessible to younger readers. But a thirteen-year-old today cannot read, for example, Greg Egan or Charles Stross.

Easton asked, "Are we losing the thirteen-year-old or the sixty-four-year-old?" (that being Malzberg's current age).

Allen Steele came in on Malzberg's side, complaining that half of what he picks up he can't read. "I want a story, goddammit, and it's getting a little difficult to find that."

Easton suggested that science fiction now requires a more advanced vocabulary that is usually possessed by a thirteen-year-old. For whatever reason, Steele said, when non-fans try to read modern science fiction, their reaction is usually "I don't get it." Steele suggested that the last twenty or thirty years have seen science fiction in a greenhouse environment, with authors talking to each other rather than to anything outside the field. (I wonder if this is what has happened with modern poetry as well.)

Edelman said that in addition there were a lot of attempts to copy John Dos Passos and other such authors. Easton asked how the mainstream makes this work, and Edelman responded, "Does it?" Kirstein suggested, "We're the only ones listening to ourselves," and as a result new people are not coming into science fiction to replace the losses. Lerner said that teenagers are coming in, but to movie tie-ins, which serve as this generation's young-adult novels.

Edelman thought that perhaps Malzberg was not entirely blameless, asking him, "Would you as a thirteen-year-old want to pick up a couple of your latest stories?" Malzberg thought so, but then talked about his writing in general. "You may have hated it, but you could understand it." He didn't have problems selling stories because people didn't know what he was about: "People knew *exactly* what I was about, and they hated it." (I defy any thirteen-year-old to pick up his latest, "Murdering Stravinsky, or Two Sit-Downs in Paris", and understand it.)

Easton suggested that young readers (and others) were attracted to movies because movies have no "infodumps," but Mark [Leeper] noted to me that "Jurassic Park" certainly had them, and other movies as well.

Steele, recounting an early lesson he learned as a journalist: "It's not enough to write to be understood. It's important to write not to be misunderstood." Easton said of infodumps, "We have this exaggerated idea of what we need." Responded Rosemary Kirstein, "And we love it." She noted that Neal Stephenson in "Snow Crash" spent long paragraphs describing how a courier 'pooled a car, how some cars could be 'pooled and some not, and so on. Steele noted that sometimes this would work but, he added, "There is a fine line between being profound and being boring."

Lerner said that since Stephenson and William Gibson are among the authors commonly found in airport bookstands, it didn't appear that infodumps were necessarily the problem. And Malzberg agreed. Talking again of Greg Egan, Malzberg said when he tried to read him, "I just don't know what's going on." The game, apparently, is to throw the reader in and not explain anything, resulting all too often in what Malzberg calls "work which is devoid of necessary explanation."

Steele said that this is exacerbated by editors, because they get it even if the readers don't, so they don't even see there is a problem. Fantasy is becoming popular simply because it is more accessible, with common tropes that are easily recognized and understood.

Edelman said he still didn't see a problem.

Assuming there is a problem, are there any solutions? Steele said the first thing we need to ask is, who is our intended audience? Who are we aiming for?

Kirstein said, "We need the whole range," (which may be true, but is not a useful answer, I think). She went on, "It's not a marketing thing, it's a perception thing."

Malzberg said, "There are no solutions." One thing that might work--but he considered unlikely--is "a decent, organized, programmatic re-issuance program." He felt that the earlier years had the advantage of editors who knew science fiction but who were not predominantly science fiction readers. Speaking of the editor of "Asimov's", Malzberg said, "Dozois has a lack of knowledge of all fiction outside of science fiction which is shocking." He contrasted this with the editor at Avon Books when it was publishing Thomas Disch, J. G. Ballard, and Norman Spinrad; this person was widely read and not a science fiction "fan."

Returning to our hypothetical thirteen-year-old, Steele said that any "solution" needs to take into account that "a thirteen-year-old will read what a thirteen-year-old will read." He said that we also needed to address "the larger question of keeping an adult audience."

Someone in the audience said that a problem (hinted at by Malzberg) was that earlier science fiction at least had familiar social milieus, while newer works change everything.

Someone else in the audience mentioned Michael Crichton, and I asked if it wasn't the case that the techno-thriller had become the new accessible science fiction. Steele said there some truth in that, and that with "The Hunt for Red October" and other books, "Clancy plays the science fiction game."

Someone else suggested that readers who couldn't find what they wanted in the bookstore could go to the library and check out classics such as "The Space Merchants". Even assuming that readers would know about these classics, and would bother to go to the library, this isn't always possible. As Malzberg said, "You can't get ["The Space Merchants"] in Teaneck, New Jersey."

(I wonder if having "inaccessible" books in the science fiction section is doing science fiction a disservice by turning off potential readers.)

The Death and Rebirth of SF Saturday, 2PM

Judith Berman, John Clute, David G. Hartwell (mod), Patrick Nielsen Hayden, Graham Sleight, Allen Steele

Description: "John Clute has stated that sf was a response to the Industrial Revolution and is nearly played out. But aren't we in the early years of an information revolution, with a biotechnical or

genetic revolution to possibly follow? If the pace of these revolutions quicken, might we see enough societal change to birth new forms of fiction? If so, would such new forms still be recognizable as sf, or would they be fundamentally different?"

Hartwell began by saying that for the past ten years Clute has been announcing that science fiction is dead, that science fiction as we know it is dead, that science fiction as it used to be written is dead, and so on.

Clute didn't deny this, but said it was "an intuition which sounds dire." He said that he had a "gradually evolving sense that perhaps a two-hundred-year sequence ... is reaching a kind of cusp." (The Singularity for science fiction?) By this he means primarily that we don't write the kind of science fiction we have been writing, or set it in the near future the way we did. Instead, we have "interstitial fiction, spanning fiction, slipstream fiction."

Nielsen Hayden said to this, "All arguments like this turn into arguments over essences." "What about taking a conceit and playing it out?" he continued. "Are we not doing this anymore?"

Clute said that traditionally science fiction required a single suspension of disbelief, and was almost always set in the future. Now we cannot determine when a story takes place, and stories are no longer thought experiments. Stories respond to history, he said, and the old forms no longer work for us.

Berman said that we are seeing things changing, but we are not sure where they are going. She, however, no longer gets out of science fiction what she used to.

Sleight said that Michael Swanwick felt that in the 1990s authors felt they were collaborating on a shared future, but current authors are not.

Allen Steele was optimistic, saying, "Science fiction is dying the death of the phoenix. ... It may be called speculative fiction or rutabaga stories, but it will be out there." [Wasn't Keith Laumer's anthology "Dangerous Vegetables" a step in the latter direction?]

Our understanding of the universe changes, Steele said, and science fiction changes with it. Nielsen Hayden disagreed somewhat, "Science fiction depends on the rate of discovery in abstract sciences" rather than on the change in daily life of middle class. Nielsen Hayden did think, however, that the concept of the Singularity has made it harder for writers to do near-future science fiction.

Berman and Nielsen Hayden both put forth the idea that the Enlightenment gave rise to science fiction by presenting a future that can be negotiated, a world in which free will and self-determination ruled. Steele sees the popularity of fantasy over science fiction as disturbing, seeing it as a turning away from rationality and towards the appeasement of supernatural forces.

Of course, even science fiction has its drawbacks. Russell Banks said that science fiction is basically a conservative genre, fearing change (according to Steele). And Nielsen Hayden quoted John Barnes as calling science fiction "a device for preventing the sense of wonder."

Berman said that fantasy is more adventure fiction than science fiction is, and in addition has the motif of moral clarity and good against evil than is often missing in science fiction, where moral ambiguity is more common.

Clute felt that this was true only because "most fantasy today is 'Fantasyland' fantasy"--it is very sanitized, with no real threat to the heroes, no real sacrifice, no real loss. He talked about the yearning for a pastoral world, though Berman noted that there are industrialized fantasies.

Steele also warned against too much prediction: "One man's prophecy becomes another generation's belly-laugh." [It's also true that one generation's belly-laugh becomes another generation's reality. Example: If thirty years ago you suggested there would be gay marriages in Canada, you would have been hooted off the stage.]

Of science fiction's lasting influence, Nielsen Hayden said, "Robert Moses was an utterly science fictional thinker"; he thought that "cities are about traffic." Someone in the audience made a complicated suggestion about fantasy which led Nielsen Hayden to ask for clarification: "The triple-decker fantasy is an outgrowth of existential dread?"

Someone asked Clute why he said two hundred years instead of three hundred, and Clute responded, "That's the part of the argument I haven't gotten up to speed yet."

Another audience member suggested that the cause of the death of science fiction is laziness in using consensus futures, such as living in the asteroid belt, or cyberpunk, or a retreat from space exploration, rather than original ideas. Clute said that the range used to be the entire human future, but now new writers won't touch the next ten to twenty years.

Someone asked if there was ever a genre that did die. Someone else said the Western, but Steele disagreed, saying that Larry McMurtry and others revived it. (Of course, they changed it in the process, which is basically what Clute is predicting for science fiction when he talks about "science fiction as we know it ..., science fiction as it used to be written.") Hartwell noted also that the Western is no longer a wide genre of generic reads, but more narrow and for the more ambitious reader.

David Hartwell said that the women's gothic did disappear as a genre, by splitting into two different genres, horror and romance. Mark [Leeper] said to me, "Depending on whether you wanted her to find love or the monster."

Hal Clement Interviewed
Saturday, 4PM
Hal Clement, Michael Burstein (interviewer)

Clement was born Harry Clement Stubbs May 30, 1922, in Somerville, Massachusetts, but moved to Braintree at a very young age, and later to Cambridge. He was able to go to Harvard because Cambridge had a scholarship for Cambridge residents.

He was introduced to science fiction in February 1930 with Buck Rogers, and can remember walking out of the public library with Jules Verne's "A Trip to the Moon" under one arm and an astronomy text under the other. This was an era, he said, when if you read science fiction magazines, you hid them. His first science fiction magazine was the October 1933 issue of "Amazing"; Clement said, "Professor Jameson hooked me on science fiction."

Clement decided to try his hand at writing, and his mother typed his first story from his hand-written copy, after which she said, "Never again," so he learned to type. "Proof" was accepted by John W. Campbell for "Analog" in 1941. That plus another sale that year totaled \$235, which Clement said "went a long way towards the \$400 tuition at Harvard." He used the pen name "Hal Clement" because he was also writing for "Sky & Telescope" and wasn't sure how well they would like to see science fiction stories by the same author.

In June 1942, Clement signed up for the Army Air Corps, but they told him to finish college first. In February 1943 he graduated and then enlisted, He served with the 8th Air Force in Britain, flying in

bombers which would carry four two-thousand-pound bombs, meaning that the flyers' biggest concern was often whether they would actually manage to take off. Clement said he wanted to make the record clear: he never saw an enemy fighter during any of his missions. Ben Bova's article about Clement in the Program Book says that at the Heidelberg Worldcon, someone asked him if he had ever been to Heidelberg before. Clement supposedly responded, "No, but I've been within a few miles of here" (meaning up above the city in a B-24). The main problem with this story, according to Clement, is that he wasn't *at* the Heidelberg Worldcon. Oh, well, it's a nice story anyway.

After the war he returned to Boston University under the G.I. Bill, where he got a degree in education. Following that, he took a job at Milton Academy, where he taught--for thirty-seven years (counting the two years during the Korean War when he was called up but officially remained on the faculty).

Burstein asked Clement why he never used his wartime experiences in his writing. Clement said he worked at not becoming one of those bores who tells war stories over and over.

Clement's "Mission of Gravity" appeared in "Astounding" starting in the March 1953 issue. He described the process of coming up with the assumptions, and then "the rest was slide rule work." "This was before slide rules grew buttons," as Clement put it. However, he now says that the calculations were off, and Mesklin should have been more like a discus than an oblate spheroid.

Clement said that a lot of his stories came because, as he put it, "I had already developed the notion that whenever I heard the words 'of course', I should immediately be suspicious." Burstein quoted Greg Benford as saying that non-hard science fiction is "like playing tennis with the net down." Clement didn't specifically agree, but said that he thinks the planning is the fun part.

Burstein asked about how Clement felt when people cited his first novel as his best work. Clement said that he likes some of his more recent of his books better, but he accepts "Mission of Gravity" as a breakthrough novel. One relatively recent novel, "Still River", came about from losing an argument with Lester Del Rey, of which he said, "I had a wide experience."

Clement said he always starts from the scientific perspective, not from a plot or character.

Burstein asked about George Richard, the artist who did the covers for the three volumes of Clement's work from NESFA Press. George Richard is Hal Clement. As an artist, Clement said he does mostly "landscapes, and planetscapes, and starscapes are *really* easy."

Someone asked him about Mesklinite reproduction, and Clement said he had never really given any thought to it. He said it might be like some worms, where the worm crawls along and then hangs on to something with its rear legs while the front keeps going forward, splitting in two and reproducing by fission. This led someone (Burstein?) to suggest that Mesklinite pornography would have a lot of stuff about rubber bands.

Rudy Rucker GoH Speech
Power Chords, Thought Experiments, Transrealism and Monomyths
Saturday, 4:45PM

(A preliminary version of Rucker's speech is available on his web site (A HREF=<http://www.rudyrucker.com>><http://www.rudyrucker.com>). The actual speech he gave varied quite a bit.)

Rucker began by talking about "transrealism" which he described as extending concepts into the

science fiction realm. For example, the notion of understanding becomes telepathy, and nostalgia becomes time travel. There are also "monomyths" (such as "man meets woman, they split up, then they get back together"). And there are "power chords" (tropes), such as "blaster guns, spaceships, time machines, aliens, telepathy, flying saucers, warped space, faster-than-light travel, holograms, immersive virtual reality, robots, teleportation, endless shrinking, levitation, antigravity, generation starships, ecodisaster, blowing up Earth, pleasure-center zappers, mind viruses, the attack of the giant ants, and the fourth dimension.

One problem with these tropes is that they are overly familiar now, but the postmodern approach to this is to be ironic. But in response to this irony and what he termed "Douglas Adams silliness", Rucker said, "F**k that sh*t! Science fiction should be hard. It should rock. It should be real." His approach is to make the trope new.

And as Rucker says in his preliminary paper, "Another group of freeloaders who fail to pay their power chord dues are the mainstream writers who dip a toe into 'speculative fiction.' These cosseted mandarins tend not to be aware of just how familiar are the chords they strum. To have seen a single episode of Star Trek twenty years ago is sufficient SF research for them! And their running-dog lickspittle lackey mainstream critics are certainly not going to call their club-members to task over failing to create original SF. After all, science-fiction writers and readers are subnormal cretins who cannot possibly have made any significant advances over the most superficial and well-known representations, and they should only be grateful when a real writer stoops to filch bespattered icons from their filthy wattle huts. Not to sound bitter..."

Stephen Wolfram thinks we can't predict the future of even simple systems. "Science fiction writers are not necessarily very knowledgeable, but they have a kind of low cunning."

Rucker said that the old techniques don't work any more. Hereditary dukes in space navies don't impress "losers and stoners." And the part when the sidekick says, "Tell me more, Professor"--Rucker complained, "My friends never say that." Having an average person as a protagonist--instead of a hereditary duke or a professor--allows the reader to follow what's going on.

The essence of writing transreally, Rucker concluded, is to be generous and sympathetic.

**Howard Waldrop Interviewed
Saturday, 5:30PM
Howard Waldrop, Ellen Datlow (interviewer)**

Waldrop was born in 1946 in Houston, Mississippi, and got his degree from the University of Texas. Growing up as a kid in Mississippi was "swell when you're a kid." He fished all the time.

He was in the Army from 1970 to 1972, and was married from 1968 to 1973. He told the following story about his ex-wife. She was in a store and saw the clerk reading a science fiction book. So she said, "I was married to a science fiction writer." "Oh, who?" "Howard Waldrop." The clerk said he didn't believe her. To which she responded, "If you're a science fiction fan and I say I was married to a science fiction writer and you say who and I just want to impress you, I wouldn't say 'Howard Waldrop.'"

Later Waldrop lived for a time in the "Monkeyhouse Slanshack" in Austin.

As for his influences, Waldrop says that he was possibly influenced by William Faulkner, but only after he had grown up. "You can't be from Mississippi and not sound like Faulkner," he claimed.

Waldrop started writing in comics fanzines with George R. R. Martin. In 1965 he happened to read Lin Carter's "Wizard of Lemuria" and said, "I can write better than this." He sold an article to "Crawdaddy" in 1969, and he sold "Lunchbox" to John W. Campbell at "Astounding" in 1970. (The acceptance letter arrived on his fourth day of basic training.) "Lunchbox" hadn't been reprinted since then, but it now appears in the anthology "Wondrous Beginnings" edited by Steven Silver.

"Tunnel in the Sky" was his favorite Heinlein juvenile (in spite of the fact that everyone else seemed to prefer "Rocket Ship Galileo"). Waldrop said that all the fascism in these books "goes right by kids." One of his earliest reads was Chad Oliver's "Mists of Dawn", and oddly enough, he ended up as Oliver's fishing buddy. Just like everyone else, he went through his Lovecraft phase, his Heinlein phase, and his Bradbury phase. Other influences he cited were Robert Silverberg and James Tiptree, Jr.

Asked about his inspiration for "The Ugly Chickens", Waldrop said he distinctly remembers seeing a Flemish painting of an interior scene with a dodo, though he has looked in vain for it since then. (That in itself sounds like a Waldrop story! But a Google search turns up that in 1605, the first scientific description of the dodo bird was made by the Dutch botanist Carolus Clusius from an observation of a dodo at the home of the anatomist Peter Paauw. So it's not inconceivable that someone included one in a painting.) The story took six months to write and is "full of infodumps." (As with Clement, Waldrop seems destined to be known for one of his earlier stories; "The Ugly Chickens" was published in 1980. Amazingly, it didn't win the Hugo for best novella for that year. That was won by Gordon R. Dickson's "The Cloak and the Staff", though I doubt that even a tenth of the people who remember "The Ugly Chickens" could tell you anything about the Dickson.)

Regarding those infodumps, Waldrop talked about researching a story. "The World As We Know It", dealing with the phlogiston theory, took him three to four months to research, which included reading fifty to a hundred books. Then he found a 150-page thesis that summarized them all! He said he can occasionally use information he has discovered for one story in another. For example, "Davy Crockett Shoots the Moon" mutated into "US". After all the research is done, however, a story takes him only a day or two to write. He dislikes typing it up though, and always writes in longhand first.

He feels editors can be useful, and recounts an example when Datlow called him up and read him a sentence. "Does that make sense?" she asked. "No." "You wrote it." "That's not what I meant."

His longest work is "Them Bones", at 60,000 to 70,000 words. ("The Texas-Israeli War: 1999" is longer, but that was written in collaboration with Jake Saunders.) In the Program Book, Waldrop says this about novels: "I write novels (*when* I write them), not series. The first time I saw the words "stand alone novel" I thought I would never stop throwing up. Once upon a time, a book was a book. One. A Singular. Now they're not books unless there's *at least* three of them."

He has been thinking about another novel, "Moonworld", for thirty years now. Datlow asked him, "How close are you?" to which he replied, "Closer than thirty years ago."

In answer to another question, Waldrop said, "No, I'm not intentionally obscuring my work, no."

His story "Sawing Boys" used Damon Runyonesque slang, and Datlow also noted, "You're writing alternate history for people who don't know history. Waldrop responded, "I suffered for my art; now it's your turn." Datlow advised him (rather frankly), "It's a tightrope. You have to be careful. You don't want to lose what audience you have."

Recent works include "A Better World's in Birth!" (a chapbook from Golden Gryphon), a George Zucco story in "Silver Gryphon" (and then someone asked who George Zucco was, proving Datlow's point), and "Custer's Last Jump" (a collection of his collaborative short fiction). Upcoming

collections include "Heart of Whitenesse" (limited edition from Subterranean Press), "Dream Factories and Radio Pictures", and "The Search for Tom Purdue". ("Dream Factories and Radio Pictures" is available only electronically--go to fictionwise.com rather than amazon.com, because the former offers eight formats including PDF, rather than just the Microsoft Reader format that the latter does.)

Someone asked again about "O Brother, Where Art Thou?" Waldrop said that the Coen Brothers did a tremendous job, but the story had been around for 2800 years, and that in fact Martin Scorsese had done it on film as "After Hours" almost twenty years ago. "If it was an homage, they forgot to tell me," Waldrop said, although someone noted that having a character named "Vernon P. Waldrip" might be considered a clue.

Con Suite

Rather than go to the Kirk Poland Competition, we went to the Con Suite, where we discussed a variety of things with a variety of people.

In a discussion about standards of kashrut ("kosherness"), someone claimed, "Reform kashrut is like the Unitarian Inquisition."

Someone described how some airlines who would fly over Iran would announce they were entering Iranian air space and that women should put on veils. Mark [Leeper] asked, "Do the veils drop from the overhead compartment?"

Someone in the Con Suite asked a bunch of us who we thought would win the next election. My response was, "It depends what you mean by 'win'."

The Golden Age of Science Fiction Is Now

Sunday, 10AM

Hal Clement, Ellen Datlow, Paul Di Filippo (mod), David G. Hartwell, Farah Mendlesohn, Shane Tourtellotte

Description: "Furrowed brows over the state and future of sf are the standard at conventions, perhaps necessarily so, but today we stop to consider how good we have it. The standard of writing, at all lengths, is higher than it has ever been. More writers than ever are building on the past in ever-more-inventive ways. Reprint projects are making available the best of the past. Many of us are finding that there are far more fine books than time to read them. An exploration of our many reasons to be cheerful."

(In preparation for this panel, someone picked up a pitcher of ice water by the handle, and the handle detached, spilling water and ice all over, but luckily mostly missing the panelists. As they were picking up the ice, someone referred to this as "The Ice Age of Science Fiction".)

Di Filippo skipped having the panelists introduce themselves, saying that he figured by Sunday people should know who everyone is. This may or may not be reasonable--it's probably fine for Readercon, but not for Worldcon.

Di Filippo said that this panel appeared to be in direct opposition to the "Death of Science Fiction" panel, and said that one could either confirm or deny that other panel. Hartwell, he said, was on both panels so that he could be the "Whitmanesque" person.

Mendlesohn said that yes, this was a gold age for science fiction, at least in the UK. In the 1970s and 1980s the only science fiction available in the UK was that from the United States from the 1940s and 1950s. She spent a couple of years in the United States, she said, from 1993 to 1994, and when she returned, suddenly all the big science fiction writers in the UK were British. And there was also a return to science fiction juveniles in the UK, and when she looked at them there was "a real kick-assness to this fiction." Of British science fiction in general she said they seemed "finally to be getting over the post-imperialist melancholy."

Clement said there was "very much very good science fiction being written now". In part he thought this was because there was more science available now to write about, not just astronomy, but also advances in biology and other sciences. And there are a lot of good children's science books, which helps them get started early. Clement gave the example of "Doc" Smith, who had to invent some of the basic science for his *Lensmen* and *Skylark* novels. Mendlesohn said that two-thirds of the British science fiction writers have doctorates in science. (Though she didn't say it, I'm sure the percentage in the United States is *much* lower.)

Di Filippo said that this was definitely a golden age for short fiction, although he admits that one still can't make a living in it--he specifically said he was talking about the content, not the market. He said that just a look at <http://www.scifi.com/scifiction> would show you such authors as Ilsa J. Bick, Octavia Butler, Jeffrey Ford, Kathleen Ann Goonan, Barry Malzberg, and Maureen McHugh, and Lucius Shepard. And there was a lot set in the near future, which Mendlesohn said should answer Clute's claim that no one was writing about the near future any more.

Two authors that Mendlesohn talked about as contributing to this golden age were Ken MacLeod and Gwyneth Jones. She mentioned the good work appearing in "Interzone" and Datlow said that she blanks out the science fiction in "Interzone" because she is reading it for the year's best horror for her anthology! (I can't imagine taking a job that would require I purposely ignore some of the most interesting science fiction around.)

Hartwell said that his anthology "Hard SF Renaissance" was meant to highlight the current renaissance/golden age, not just in the United States, but also in Canada, Australia, and the UK. Magazines outside the United States, he said, "publish half a dozen stories that I think are just terrible and are totally memorable."

Tourtellotte thought that the explosion of commercial and information media are feeding this renaissance. Mendlesohn characterized the information explosion by saying that to research something, don't go searching yourself; put a query out on Usenet and in five minutes you have an expert. Tourtellotte said that it was now also cheaper to produce and print a zine, as well as there being an explosion in on-line markets, print-on-demand (especially for reprints), and so on, and that this was also driving the current golden age. (NESFA Press may be an example, though their situation is unique.)

Mendlesohn said that a side effect of all this was that one can no longer read the entire field as it comes out. In particular, she sees a shallowness of new science fiction, especially in feminist science fiction and science fiction criticism in that the authors read only feminist works when they research older material. She also sees a division of science fiction into political subgenres.

Di Filippo described this as there being "one enveloping community where this Golden Age is happening" during the Campbell era, but not now. Now there is a golden age for military science fiction, a golden age for feminist science fiction, and so on.

Hartwell disagreed, saying that even during the Campbellian era "there was an out-group in the Golden Age." Actually, it was pointed out that there were two or three. The main out-group was the Futurians. (However, Isaac Asimov was in both the Campbell circle and the Futurians). There was

also a group of space opera writers who wrote for such magazines as "Planet Stories". And then there were "the people we never talk about at all, ... people who wrote terrible trash in 'Amazing' and other magazines."

Clement said, "[We also] made a distinction between science fiction--I didn't even add the 'hard' [then]--and fantasy, which I eschewed."

Mendlesohn pointed out that the classics we admire were not necessarily admired then. "Stories that became anthologized classics were trashed by readers [of that time]."

Speaking of stylistic differences now, Mendlesohn said that "early MacLeod and Banks books sound like a pub argument on artificial insemination ... no, no, I mean artificial intelligence." Hartwell said that authors are not only talking to each other, but they are arguing and disagreeing, and this is one characteristic of a renaissance. Mendlesohn said she found 120,000 words on the M. J. Harrison web site discussing whether there is something called "The New Weird."

Hartwell talked about an earlier time, saying, "The Seventies was a decade of real ferment and argument." "As of 1975," he claimed, "the science fiction field was arguably leading the entire world feminist discussion." There was also a backlash against the New Wave, with Ben Bova, Lester Del Rey, and Judy-Lynn Del Rey responding to Michael Moorcock and J. G. Ballard by looking for more of the "Good Old Stuff." Mendlesohn said that around 1986 feminist science fiction stopped being good and exciting and didn't make a comeback until around 1993.

Returning to an earlier statement, Hartwell said, "A majority of the best stuff is short fiction." There are a couple of outstanding novels, and a few very good ones, but there are a hundred outstanding stories. (Is this per year or over some other period of time?)

Mendlesohn said that one stumbling block was that you can't write about science you can build in your home anymore. Hal Clement said when he was starting out, readers were less demanding: "If there was a good idea in the story that was all you really needed." He said for "Still River" he had to work harder on characterization, but his description still made it sound like a science exercise.

From the audience, Faye Ringel noted, "The Golden Age is always 'ago'."

The Career of Rudy Rucker Sunday, 11AM

Jim Freund (mod), Paul Di Filippo, Glenn Grant, Ken Houghton, Diana Reed Slattery

Description: "As a mathematician, computer scientist, professor, and writer of both fiction and nonfiction, Rudy Rucker explores many dimensions, and each of his interests informs the others. As a writer, he is particularly known for his *ware series of novels, for which he is considered one of the founding fathers of the cyberpunk movement. He also espouses a style he calls "transrealism" which he defines as writing about one's real life in fantastic terms, in novels such as *The Hacker* and *the Ants*. And he has recently forayed into historical fiction with a novel about Peter Bruegel. Come join our exploration and celebration of this protean talent."

Glenn Grant said when he first met Rucker, he thought, "Gosh, he looks so normal!" "But then you hang out with him for five minutes and you realize he's not normal at all." He first became aware of Rucker through his fiction ("*Spacetime Donuts*"), but Freund said he first heard of Rucker because of autocad and "Life" software programs.

Slattery said that she was influenced by Rucker's idea of the transreal as "a way of navigating the

politics of consciousness." (Can anyone explain this to me?) She also said, "The only legal hallucination today is the consensual one." In fact, she said she could be described as a "theory-head" and then talked for five minutes and I couldn't understand anything she said.

Houghton introduced himself as someone whose profession was "interpreting the officially avant garde science fiction area." Discussing Rucker, he talked about "following [Rucker's] journey and mapping that journey." This sounded like sounded off the program "Inside the Actors Studio", and I'd just like to say that the cliché of just about every creative act or life being a "journey" is wearing a bit thin for me.

Di Filippo noted that Rucker appeared in "Unearth", a magazine devoted to publishing only first stories. "Spacetime Donuts" appeared as a serial there--or rather the first two installments did, but then the magazine died before the third and last installment could appear. He said that he wrote his story "Fuzzy Dice" as an homage to Rucker, and says he's thinking of getting a "What Would Rucker Do?" bracelet. (This strikes me as a bit hagiographic.)

(I left this panel after about a half-hour, because if you were unfamiliar with Rucker's work, the panel was basically incomprehensible.)

Ambizione!

Sunday, 12N

John Clute, Ellen Kushner, Barry N. Malzberg, Laurie J. Marks, David Alexander Smith (mod), Howard Waldrop

Description: "Italo Calvino wrote: 'Overambitious projects may be objectionable in many fields, but not in literature. Literature remains alive only if we set ourselves immeasurable goals, far beyond all hope of achievement. Only if poets and writers set themselves tasks that no one else dares imagine will literature continue to have a function.' We'll talk about reading and writing works of great ambition, and how one affects the other."

The panelists were asked by Smith what their earlier ambitions were and whether they felt they had succeeded. Barry Malzberg said, "To make a living as a science fiction writer, and no, I didn't." Howard Waldrop then said, "Barry stole my thunder, but I'll go him one better. I tried to make a living in science fiction writing short stories."

Marks said it was to start writing. Kushner was going to pass, but then said it was to buck her own snobbery (against series) by continuing to write in the same world as "Swordpoint"; said she is writing an "interstitial novel" between "Swordpoint" and "The Fall of the Kings".

Clute said he wanted to make reviewing a front door, rather than a back door into science fiction. Smith said that putting together a set of collective consistent stories (in "Future Boston") had been his ambition.

Asked about their current ambitions, Malzberg said, "After thirty-eight years of publishing fiction, anyone who has any ambitions at this point after my experience would be crazy. My ambition is to arrive safely in Teaneck, New Jersey." (Though in response to an earlier suggestion that new readers should go to the library and read classics like "The Space Merchants", Barry Malzberg had said, "You can't get that in Teaneck, New Jersey.")

Expressing a desire to find someone less pessimistic, Smith asked Malzberg, "Can we interview the 1973 version of you?" "Not with my wife in the audience." At this point, someone accused Malzberg of being jaded. Malzberg replied, "No, I'm enjoying this," to which Waldrop noted, "That's an

improvement over the 1973 version."

Kushner said that now, "My ambition is to write work that will last." Asked whether that wasn't every writer's ambition, she said no, and gave the example of writers who did media tie-in novels or quick series books with which they expected to pay the rent but from which they did not expect any lasting fame.

In terms of Calvino's statement about over-ambitious projects, Clute said that Robert A. Heinlein's attempt to write almost everything in a single "Future History" probably qualified, and Smith added Isaac Asimov and James Blish as two others who attempted to have a "grand plan" tying all their works together. Asimov did that after the fact, though, and ended up with some not very seamless joins. (A lot of it, in fact, reminds me of those end-of-the-season episodes of the "New Outer Limits" on Showtime where they attempt to take all the stories written in their free-form anthology format and fit them all together.)

Clute said that at least those authors *thought* it was a possibility, lamenting, "Science fiction now does not dare that sort of grasp." He then asked, "Do we read many science fiction novels that are ambitious novels about the near future?" Smith wondered if one problem with near-future novels was that "by the time you write it, it's out of date." Clute disagreed, pointing out that we still read a lot of older works that have become outdated. Regarding outdated stories, Waldrop observed, "In keeping with my career so far, my Y2K story was published in February 2001." Smith asked, "Did you regard that as alternate history?" "At the time I regarded it as \$2500," Waldrop responded, noting that "The Texas-Israeli War: 1999" also became alternate history in that sense.

Kushner said that this was not true just of science fiction--even fantasy gets outdated. She gave as an example that the position of women has changed quite a bit in fantasy (no, not *that* way). Describing how she could tell how to write to avoid this problem, she achieves an astro-anatomical feat, saying she follows "the star which has always guided me which is my gut."

Smith said there was also "contractual ambition," meaning I suppose promising to deliver works faster than one can actually do so. And there are works that are ambitious in scope (one thinks of Olaf Stapledon's "Last and First Men"), and works that are topically ambitious. Of the latter, Smith said that trying to write something now based around the September 11 attacks would be topically ambitious. (It wasn't until the 1990s that one started to see works about the Vietnam War.) There are also thematically ambitious works and literarily ambitious works.

Malzberg said in terms of literarily ambitious works, there were a lot of authors doing that forty years ago; Alfred Bester, Henry Kuttner, C. M. Kornbluth, Frederik Pohl, James Blish, Damon Knight, and Walter M. Miller were some he named.

Smith noted that ambition wasn't everything. He said there are works that are ambitious, and even lasting, but still terrible, and cited E. E. Smith as an example. Clute said that Smith "desperately wanted to convey a sense of wonder and occasionally, miraculously, did."

Smith said that now "[my] personal ambition is that the next one is better than the last ones." (Given the fact that Hal Clement and Howard Waldrop are both known best for a work early in their careers, this is an interesting comment.) Marks added, "Sometimes we aspire just to finish it."

Malzberg then went on a long riff about Randall Garrett, who apparently had no ambition. At one point, he had said, "This man is my literary hero. He doesn't give a damn." Garrett, according to Malzberg, wrote publishable prose, and didn't care what the quality was. In fact, Malzberg added, "This is postmodern. He not only didn't care, but he didn't care that he didn't care." In addition, "He didn't like the act; he liked the money."

Waldrop felt that quality **was** important. "99.9 percent of the people who lived and died didn't matter." And children, contrary to popular view, are not you carrying on; they are them carrying on. All we have to carry on, he said, are our works. Malzberg interjected, "But how can it matter after you're dead?" Clute felt it was the anticipation of mattering, and disagreed somewhat with Allen Steele's earlier statement (on a different panel) when he said, "It's a privilege to be misunderstood because most people are not heard at all." Waldrop said, "It cheers me no end that you [Malzberg] will be read a hundred years from now."

Regarding Calvino's statement, Smith called it "heroic morose." Marks said it seemed to imply that ambition was hopeless. Waldrop quoted Shakespeare: "A man's reach should exceed his grasp," He then quoted T. H. White's statement to his draft board, "Any bastard can go to this war and get his head blown off. I'm the only one who can finish this damn book" (referring to the unfinished "Once and Future King"). (I was unable to verify this statement.)

Smith asked if ambition therefore implied failure, and Malzberg, ever cheerful, replied, "Of course." He said that Leonard Bernstein, on his deathbed, lamented, "My life has come to nothing." Marks said that ambition must imply at least the possibility of failure.

Di Filippo noted that there are writers whose ambitions are totally misguided to their talents. For example, Sir Arthur Conan Doyle thought his historical novels would be what he was remembered for. Clute added that Sir Arthur Sullivan (of Gilbert and Sullivan) thought he was a writer of serious music and that the operettas were mere fluff. However, the only thing other than the operettas that he wrote that is remembered is "Onward Christian Soldiers". Malzberg said that Sullivan once claimed that he "was the organ grinder to Gilbert's monkey." Malzberg added that he thought that in the science fiction area, John Brunner could be added to this list of misguided artists, with his later works striving for something other than what he was best at.

Smith suggested that the problem might have been that Doyle was born at the wrong time, and hence "bought into the Victorian definition of detective fiction rather than what he created." Poe also was ahead of his time, Smith observed, and died an alcoholic. Waldrop said there was a bias against novels in the 19th and early 20th century, and "nearly every great novelist [of that time] wanted to be a playwright." Someone in the audience added that Nathaniel Hawthorne wrote only when he was unemployed.

Smith said that authors console themselves by telling themselves that they are "too ambitious for the audience."

Someone asked whether one's ambition should be for self-knowledge. Malzberg replied, "I really don't know and that's kind of liberating in a way."

Atomic Power and the Singularity: Great White Tropes of SF? Sunday, 2PM

Catherine Asaro, Jeffrey A. Carver, Kathryn Cramer, Tom Easton, Jeff Hecht (mod), Rudy Rucker

Description: "The sf of the 1940s seems, in retrospect, to be filled with both large and tiny atomic generators producing clean, unlimited power. The reality turned out differently. The sf of today is filled with various human/computer hybrids achieving transcendent states of mind. We suggest that the Singularity may be to the 2000s as atomic power was to the 1940s. What might this say about the state of today's sf? Can we imagine how the reality might be a bit more complicated?"

Discussing her background in physics, Asaro said, "I write a little bit of fantasy of which some

people say my doctoral thesis was my first one."

Someone suggested that the first question might be, "What is the Singularity and how do we define it?" (Other than Charles Stross's "definition"--"the Rapture of the Nerds"--or Cory Doctorow's--"the Rapture of the Geeks").

Rucker said that the Singularity was invented/conceived by Vernor Vinge, and was a statement of strong artificial intelligence. That is, computers will eventually become equivalent to us (which is debatable); then they can be made smarter and faster because hardware is always getting better, and they can also design the next generation of computers. Easton said that this was true enough, but flawed in that it was too specific. He talked about "when the future becomes unpredictable," to which an audience member responded, "Like it wasn't already." Rucker agreed, saying that we tend to forget that history was never predictable. (Although I'll note that many early civilizations thought of history as cyclical rather than linear, as repeating cycles rather than a progression.) Rucker claimed that though we feel that change is accelerating, there was actually more change between 1900 and 1950 than between 1950 and 2000. Of computers and such, he said, "AI is just a bunch of stupid head tricks." In the year 3000, he said, we'll still be people.

Asaro felt the notion of the Singularity was flawed because things will eventually slow down because of societal and cultural forces. Carver added that Charles Stross once said, "One of the things most wrong about science fiction now is that the idea of the Singularity makes people think they can't write about the near future."

Carver felt that this notion of the transformation of humanity was a little optimistic. "Half the software will be written by Microsoft," he said, "it's gonna crash, and we'll never achieve the Singularity." Hecht said, "The termination of the [idea of] the Singularity comes when the bubble pops" and the telecomm bubble that so fueled it has already popped. "Is the economic system capable of it?"

Easton disagreed with Asaro, saying, "I'm reluctant to draw limits on just what we can handle." Asaro responded, "I don't think human beings would settle for being second-class citizens."

Cramer said that in addition, "The Singularity assumes there is such a thing as general intelligence, and [that] we know what it is."

Asaro said that we have no problem adding pacemakers and such, observing, "We always want to make ourselves better." Cramer responded that the Singularity seems to assume a uniformity and universality of improvement. She warned, "But if we make our left foot work a thousand times faster without changing our right foot...." Hecht said that we also needed to factor genetic modification into this whole concept.

Carver interrupted, saying, "If I might be heretical for a moment and address the actual question ..., " that is, whether the Singularity is today's "atomic power" trope. Easton thought that atomic power might be making a come-back, noting, "Environmentalists are starting to realize that atomic power is more benign than fossil fuels."

Hecht thought that a lot of tropes are impractical in the realities of the business world, because complexity requires both the resources of large corporations *and* the nimbleness of small corporations. (Indeed, the whole AT&T/Lucent/Avaya corporate history of late seems to exemplify this paradox all too well.)

Speaking about real-world realities, Rucker said that someone was recently telling him about "open source genomics", to which Rucker replied, "That doesn't sound like a good idea."

Cramer said, "I don't believe in the Spike or the Singularity in their true form, but I do believe in catastrophic resonances." Rucker thought that rather than the Singularity, we might have the "Long Boom." Hecht pointed out, "We tried that," and Cramer added, "I made a lot of money in the stock market for four months."

Asaro said that currently we are less fragmented than ever before because we have the potential for global networking. But the fear is that we will lose control and be unable to slow it down. Hecht asked, "How were we ever in control?"

Carver said, "I want the sense of wonder but I [also] want some sense of understanding." (He was referring to technology, but it could probably apply to science fiction as well.) Rucker voiced a common notion of what we fear when he said, "I'm more scared of biotech than of computertech because I understand computertech."

Asaro thought we were looking at the Singularity as purely technological when it could be that it would be an evolutionary step where we would become something qualitatively different than we are today (just as we are different from cavemen, I assume). Easton suggested that we might become Gaia, though that was considered unlikely.

Someone in the audience said that what the panelists seemed to be talking about was not artificial intelligence, but artificial consciousness. Rucker said, well, one could define a happiness value, and then the computer could be programmed to maximize this. (This seems similar to Greg Egan's "Reasons to Be Cheerful".) Asaro asked the panelists, "How would you know if I were just simulating emotions?"

Cramer said that a qualitative difference between humans and computers is that humans have an "open, digressive way of learning," as opposed to the very directed learning modes of computers. Hecht felt that the major break-through in intelligence and how we perceive it was more likely to be in the other primates, for example, the notion that chimpanzees (and bonobos) belong in genus Homo with us. Easton wasn't sure this would happen, saying, "Many of us have horribly ingrained resistance to expanding our horizons."

Another difference between humans and computers, according to Asaro, is that humans take for granted physical presence and all that it entails, but that that is very difficult for computers to do.

An audience member said that yet another difference was in the fallibility of our memories, which has both positive and negative aspects. Carver said that both humans and computers are "more and more prone to idiosyncratic failures." And someone else felt that we had to address the possibility that our feeling of continuity is an illusion.

Miscellaneous

One of the things I noticed on various panels was that in spite of the supposedly higher level of discourse at Readercon, an amazing number of people don't know how to pronounce words such as "simulacrum" or "automata".

In addition, I've come to the realization that a lot of today's science fiction does not lack ideas so much as a clue.

Button seen at Readercon: "Gods don't kill people--people with gods kill people."

Ideas for future panels: Why Are the Scots Taking Over SF? (This will probably appear in some

form at Intersection. I suspect a tradition of engineering has something to do with it.)

Evelyn C. Leeper may be reached via [e-mail](#) or you may visit her [Homepage](#).

[Return to Index](#)

[Other Conventions](#)

[FANAC Homepage](#)