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SUBMISSIONS
The SFRA Review editors encourage submissions, including essays, review essays that cover several related texts, and interviews. Please send submissions or queries to both coeditors. If you would like to review nonfiction or fiction, please contact the respective editor. The general editorial address for the SFRA Review is: <SFRAReview@aol.com>.

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CALL FOR PAPERS


When: May 24–27, 2001 (Memorial Day weekend).

Where: The Schenectady Ramada Inn and Convention Center
Schenectady, NY


Artist guest of honor: Vincent Di Fate.

What: SFRA solicits papers, paper proposals, and panel proposals from scholars interested in any aspect of science fiction. In particular, the 2001 conference will focus on the prospects for science fiction in the coming millennium, its historical roots, and its connections to other genres. Topic is open, but papers on the works of the guests of honor are particularly welcomed.

Paper proposal: 250-word abstract. Final paper may not exceed 20 minutes' reading time. Send the presentation title, your name, mailing address, phone number, and e-mail address. The receipt of proposal will be confirmed by e-mail.

Panel proposal: Panel name and a 250-word abstract. Please include the panel title, the panel chair (who may be one of the presenters), mailing address, phone number, and e-mail address of each presenter. The receipt of proposal will be confirmed by e-mail.

Contact: Programming chair, Barbara Chepaitis, 19 Hillside Avenue, Schenectady, NY 12308
<chepaitis@aol.com>.


Postal address: SFRA 2001, P.O. Box 2085, Albany, NY 12220-0085; (518) 456-5242; jan finder <wombat@sff.net>.

PRESIDENTIAL MESSAGE

Cleveland Conference Report

Alan Elms

First, why Cleveland? Well, it’s the home of, or not real far away from, the academics who staged the conference and several of the writers who were guests. Second, it’s a good-sized city with an interesting mix of the old and new, a prime location on Lake Erie, and a very pleasant downtown campus, where Cleveland State University was willing to let us take over most of one floor and a big auditorium for the conference. Third, it has the Rock and Roll Hall of Fame, where Diane and I spent a wonderful afternoon after the conference was over. We didn’t get to the International Cleveland-Style Polka Museum on this trip, but maybe next time.

Second, did this conference work? Very well indeed, under the careful supervision of Joe Sanders and with a lot of work by Bruce Beattie, Anne Hanes, Barbara Lucas, James Saulino, and probably some other people whose names I’ve missed. The program was strong, run efficiently and on time, without feeling rushed. The excellent list of guest authors was augmented by writers from the annual Imagination Workshop, running just down the street, so that we got a lot more than usual for our honored-guest money. (Memo to future conference planners: Try to find another conference to join forces with; that worked very well in Long Beach with the Eaton Conference, too.) Another nice touch was the provision of boxed lunches for people who wanted to come to the noontime events instead of having to run around looking for an open restaurant. You’d think people would skip lunch anyway, in order to hear Joan Slonczewski talk about chimp/human hybrids or to watch a panel on sf sex in film and television—but the provision of free lunch (well, lunch as included in the conference fee) made it a lot easier.

And of course there was the awards banquet, this time located at the Great Lakes Brewing Company, a microbrewery and restaurant that looked as if it had grown up with the city but is actually only a few years old. Recommended dining for those of you who are now planning that trip to the International Cleveland-Style Polka Museum, and a very comfortable place for our banquet. The First Annual Graduate Student Award went to Shelley Rodrigo Blanchard, who is already active in SFRA (see "panel on SF sex," above), and who will soon be even more active (see "new Review editors," below). The Pioneer Award for best scholarly paper of the year went to Wendy Pearson, who couldn’t be at this year’s conference because she was participating in another conference in Australia, where she teaches; at her request, guest author Candas Dorsey accepted the award for her. The Thomas Clareson Award for service to the field went to Arthur Lewis, surely the first of our Clareson winners who already has an award named for him! (The Arthur O. Lewis Award is given by the Utopian Society for best paper by a young scholar.) The Pilgrim Award went to Hal W. Hall, who earlier in the conference had demonstrated his latest contribution to scholarship in the field, his online Science Fiction and Fantasy Research Database—which may in the long run prove to be the most useful of his long line of useful contributions.

The business meeting on the final morning was surprisingly well attended—thanks, all you Responsible People! One of the most important parts of the meeting was the introduction of the new (as of 2001) coeditors of the SFRA Review, Barbara Lucas and Shelley Blanchard. But we’re not losing our current hard-working coeditors altogether; Craig and Karen have agreed to consider composing a book proposal for an introductory-level teaching anthology, for use both in high schools and in freshman college classes. Michael Levy, who has done a great job as treasurer, reported that SFRA is currently comfortable enough financially that the IRS wants us to begin reporting to them annually (they say they’re not going to take any of our money—just checking). And the rest of the business is in our very conscientious secretary’s report. (It’s not quite time for me to issue a valedictory President’s Message, but I do feel grateful to these folks and to the
rest of the Executive Board, including Joan Gordon who has come up with a fine slate of candidates for our upcoming election, plus Adam Frisch who has worked enthusiastically with Pete Sands in getting our Web page going.)

Finally, why Schenectady next year? Well, partly because Jan finder is willing to do the work of putting on a conference there; partly because the city does have strong science fictional associations (e.g. Kurt Vonnegut, Barry Longyear—I hope there’ll be a Vonnegut landmark tour); partly because.... It’s been a long time since I’ve been to Schenectady, so I don’t know what else might be of interest, but I expect another solid and well-attended conference. It’s up to a lot of you to make it that way; do volunteer to present strong and scholarly papers, as well as to sign up for the conference well in advance. I’ve heard some complaints that it’s sounding too much like a fan convention, partly because of the way Jan finder has designed the online conference poster. (Too many exclamation marks!!!) I’ve communicated these concerns to Jan, and I feel comfortable with his willingness to stress the scholarly aspects of the conference (with the support of the program chair, Barbara Chapatis). Jan is well known as an organizer of fannish conventions, but he has been a member of SFRA for some time and has attended several of our conferences, so he knows what we expect. Some fans will undoubtedly show up in Schenectady, but they will mostly be Serious Readers (or Serious Viewers, or both), and we can show them what real scholarship looks like. We may even get some converts—remember that most of us were once just fans too.

EDITORIAL

\textbf{Conferring}

Karen Hellekson

It was at the SFRA 2000 annual meeting in Cleveland, Ohio, that I first met my coeditor of more than two years, Craig Jacobsen. I like to think that as our hands touched for the first time in a friendly “hello” handshake, the heavens opened up, light slanted down, and an angelic choir was heard—but I doubt this was the case, although more than one person was heard to exclaim that the event should have been captured as a Kodak Moment, if nothing else. The annual meeting enabled me to meet in person some people I had only met by their words: Craig Jacobsen, Susan Stratton, Shelley Rodrigo Blanchard, Rich Erlich, Jan Finder, Hal Hall, Bruce Beattie, Samuel R. Delany, and Arthur O. Lewis, to name just a few, as well as board members Carolyn Wendell and Adam Frisch. It was great to put together faces with names I have seen a dozen times in the SFRA Review. I also saw some old friends: Alan Elms and Ed McKnight, with whom I share intellectual interests as well as friendship, Joan Gordon, Michael Levy, Sandra Lindow, Joan Sloczewski, and Betty Hull, all of them people I always welcome seeing at SFRA gatherings because they are so much fun to talk to.

The best part of this year’s conference, though, was the infusion of new blood. The SFRA membership is a graying one. So meeting young SF scholars Justine Larbalestier, Javier Martinez, Shelley Rodrigo Blanchard, Jean Lauer, Barbara Lucas, and Joe S. Sanders—ironically, not all are members of SFRA, but I’m working on that—was particularly inspiring. I have let my interest in science fiction scholarship fall by the wayside lately, in favor of work in my nonacademic field (copyediting in the scientific, technical, and medical market), particularly as I am no longer an academic and I no longer teach. Hearing all the papers and engaging in hallway discussions have revitalized my interest in science fiction scholarship—a good thing, to be sure. But as much fun as hearing the papers was, it was more fun to play Mafia with a smattering of people from the SFRA conference and the Imagination conference; to chat with Hal Hall at the awards banquet, only to watch him win the Pilgrim Award an hour later (and it’s about time!); to go out drinking with Chip Delany, Javier Martinez, Ed McKnight, Craig Jacobsen, and Joan Gordon (Ed and Craig can do very good Scottish accents, when sufficiently provoked); and to share pizza with the Board.
CALL FOR PAPERS
Who: Fourth Annual Meeting, Law, Culture, and the Humanities, University of Texas at Austin.
Where: University of Texas, Austin, Texas.
What: Broad range of topics, coordinated by a working group of well-known legal scholars, many from a critical theory or law and society background. Science fiction texts welcomed.
Send: Proposals should include title of paper, abstract of up to 150 words, statement up to 1000 words, name, address, fax, and e-mail. Full panel proposals welcome and should include information for each participant. “Statement” means to explain its importance in interdisciplinary studies of law, culture, and the humanities.
Deadline: No later than October 1, 2000.
Contact: Professor Austin Sarat, Department of Law, Jurisprudence and Social Thought, Box 2239, Amherst College, Amherst, MA 01002; <www.yale.edu/lawweb/lclch>.

CALL FOR PAPERS
What: Picturing Justice, online journal of law and popular culture.
Send: Completed essays up to 2000 words in length. Inquiries welcome.
Contact: Paul R. Joseph, Managing Editor, Associate Dean for International and External Programs, Nova Southeastern University Law Center, 3305 College Avenue, Fort Lauderdale, FL 33314; phone (954) 262-6171; fax 262-3835; e-mail josephp@nsu.law.nova.edu; visit Pj at <www.usfca.edu/pj> and <www.usfca.edu/pj>.

MEMBER UPDATES
Susan Baugh’s new e-mail address is susanbaugh@bigfoot.com.

No sooner did I return from Cleveland that I attended the Campbell Conference banquet in Lawrence, Kans., where, strangely, I ran into Justine Larbalestier, whom I had just met for the first time in Cleveland. Justine is doing postdoctoral work on the Futurians through the University of Sydney, in Australia, and is living on a shoestring in New York City; she hoped to interview some Futurian attendees. We sat together at a table with Vernor Vinge and David Marusek. I picked a lucky table: Vernor won the Campbell for A Deepness in the Sky (my favorite book from 1999, I think) and David won the Sturgeon for his short story “The Wedding Album,” which was, I was pleased to see, the lead-off story in the 17th Year’s Best Science Fiction. I interviewed Vernor; look for the results of that interview in a future issue of the SFRAREVIEW.

Craig and I have two more issues of the SFRAREVIEW together after this one. But I hope to be able to continue meeting people at the annual meeting and at other meetings, such as MLA and IAFAn—and I hope I can find more time to write and work in the academic sphere. The more I engage with science fiction fandom and scholarship, the more I realize how welcoming, friendly, and fun it is.

SFRA CONFERENCE 2000
SFRA Executive Committee Meeting
Carolyn Wendell
Cleveland, Ohio
June 29, 2000

The meeting was called to order at 5:45 P.M. and was disbanded at 7:15 P.M.

NEW SFRA REVIEW EDITORS
Two people might be interested. Karen Hellekson has volunteered to help the new editors by copyediting the text, and Craig Jacobsen is willing to help if a new editor is local.

We need a directory, but Jacobsen and Hellekson are stepping down and unable to put one together. It was agreed to ask Barbara Lucas if she could produce one (Jacobsen is willing to do the layout).

SLATE OF OFFICERS FOR 2000 ELECTION
President, Mike Levy, Batya Weinbaum; vice president, Bruce Beattie, Peter Briggs; secretary, Kenneth Andrews, Wendy Bousfield; treasurer, David Mead, Jake Jakaitis.

CONFERENCES
Should the vice president’s duties include some conference coordination (e.g., to handle deadlines, format)? Does SFRA need a permanent conference coordinator? Should we have a permanent site? What happened to the conference continuity book? The discussion focused on the advantages of having a coordinator who could make abstracts available ahead of time, prepare a list of presenters and of attendees, and send letters to attendees who are not members.

All agreed that seed money for an SFRA conference should be raised from $500 to $1000.

TEACHING ANTHOLOGY
The field needs accessible material to introduce students to print stories. Originally, David Hartwell and Milton Wolf were to put one together with Tor, but that has not developed. Needed is a proposal to circulate among textbook editors, who are in a much better situation than individual scholars to analyze the competition and consider the market. Jacobsen will
MISCELLANEOUS ITEMS

Batya Weinbaum has requested support for the academic feminist journal she edits, FemSpec, both in financing and in being added to the options list for subscription with membership. It was decided to give $500 to FemSpec but to require that the journal have a regular, annual publication schedule before it is considered as a membership option.

It has been suggested that organizations be considered for the Pilgrim Award (e.g., Foundation).

Our membership is down about 15 people from where it was this time last year.

Do past presidents pay memberships dues or was this arrangement stated in the by-laws abolished several years ago? This needs to be researched.

It cost SFRA $250 to have our taxes done. The accountant recommended a change in the systems being used. The next treasurer needs to consider this.

Outgoing officers are urged to submit notes, comments, and suggestions to incoming officers to make their jobs easier and to ensure continuity.

SFRA BUSINESS

SFRA Conference 2000
SFRA Business Meeting
Cleveland, Ohio
July 2, 2000

The meeting was called to order at 9:15 A.M. and adjourned at 11:00 A.M.

PRESIDENT'S REPORT (Alan Elms)

The organization is in good shape. Several conference attendees say they want to join. Thanks are due to Joe Sanders for his work on the conference.

Editors for the SFRA REVIEW: Thank you to Karen Hellekson and Craig Jacobsen, who have done wonderful work. Barbara Lucas and Shelley Rodrigo Blanchard have agreed to be the next coeditors.

Future conferences and seed money: the Executive Committee recommends that conference seed money be increased from $500 to $1000. Moved, seconded, and approved.

Directory: the 2000 Directory will be produced by Barbara Lucas. The President requested that the cover be a different color from the SFRA REVIEW issues, for better visibility.

VICE PRESIDENT'S REPORT (Adam Frisch)

Recruitment needs more work—currently, most new members are coming from the Web site, which Peter Sands is doing an excellent job with. We ought to be able to take materials from this site and send them on to whomever is interested. This conference had a session about the Web site, and many of the new ideas expressed there will be put to use very soon.

Joe Sanders announced that he had received the continuity book from last year: materials need to be organized and copies made.

PAST PRESIDENT'S REPORT (Joan Gordon)

The slate of officer candidates is as follows: president, Mike Levy and Batya Weinbaum; vice president, Bruce Beattie and Peter Briggs; Secretary, Kenneth Andrews and Wendy Bousfield; and Treasurer, Jake Jakaitis and David Mead. Their candidates' statements will be in the next SFRA REVIEW.

Critical types: A new feature of the SFRA REVIEW is a series of articles on the various critical theories called "Theory and Beyond." Although some types of criticism have been assigned, more writers are needed (notably for...
Jonathan Laidlow
<LAIDLOJ@hhs.bham.ac.uk>
announces the online publication
devoted
site address
Ultan's Gevers on the Long Sun sequence;
For Peake Studies, the correct Web
information.
the science
Wol(e. The first edition contains: Nick
unknown. That's also what JFA itself(
e-mail bounces back
-mail address should be
The e-mail address
editor
Schlobin
<mark@fiveowls.com>; this is new
information.
For JFA, the e-mail address of Roger
Schlobin is listed as
<dragon@ateze.net>. However, the
e-mail bounces back for reasons
unknown. That's also what JFA itself
lists, so I don't know what's going on.
For Peake Studies, the correct Web
site address is <www.unil.ch/langll
docs/peake-stl>. The e-mail address
should be
<100031.3620@Compuserve.com>.

ULTAN'S
LIBRARY
PUBLISHED

Jonathan Laidlow
<LAIDLOJ@hhs.bham.ac.uk>
announces the online publication of
Ultan's Library, a new journal
devoted to essays and reviews on
the science fiction author Gene
Wolfe. The first edition contains: Nick
Gevers on the Long Sun sequence;
Jeremy Crampton on the Soldier
novels; Peter Wright reconsidering
The Book of the New Sun;
postcolonialism).
Committees (rotating membership, three-year terms) need members:
Clareson, Pilgrim, and Pioneer. Please contact Alan Elms to volunteer.

SECRETARY'S REPORT (Carolyn Wendell)
David Mead has given all the SFRA records in his possession to the
archives at University of Kansas Kenneth Spencer Research Library. These
included a run of directories, correspondence from Bill Hardesty's term to
Mead's, and information about various meetings. The contact person at the
Library is Alexandra Mason. [Editor's note: Alexandra Mason has retired from
her position at Kenneth Spencer Research Library. The contact person is now
Larry Hopkins.]
Others who donate are asked to please inform SFRA.

TREASURER'S REPORT (Michael Levy)
Overall financial picture: SFRA is under budget, with surpluses for the
last two years, thanks mainly to the SFRAReview's being produced so
efficiently.
IRS: Since SFRA had an income of over $25,000 last year, a tax form
had to be filed. Because we are a nonprofit organization, we do not, nor shall
we at any point in the future, owe money, but the IRS wants the forms filed.
Our methods of accounting, the tax accountant informed Mike Levy, are
mixed: they work, but they complicate filling out an IRS form. Mike
recommends that the next treasurer investigate a new set-up with the help of an
expert. It has been suggested that SFRA may need the help of an accountant
for its bookkeeping, as the organization has grown larger and more complex.
The Scholar Support Fund: more nominations for people who need
financial help are needed. Please send the treasurer suggestions for candidates.
Membership: down by about a dozen from this time last year. A third
round of renewal notices need to be sent out, to those who have been
members for years but have not renewed this year. Those who renew late
received back copies of publications for the months they missed, even though
the membership for the calendar year.
Foundation: Bills are still being requested by SFRA from Foundation.
2000 conference: Bills are still coming in, so no accounting of that is
possible now.
Surplus money: Surplus money allowed the SFRA to help editors of the
SFRAReview to travel to the conference.
Officer communication: One of the ways money has been saved has
been to eliminate face-to-face meetings of newly elected officers and substi­
tute a conference call. Also, because there is an officers' listserve, business
matters can be quickly discussed and settled, so that reduces the agenda
material for the group meetings. Future Executive Committees will decide
how they can best communicate.
The Pilgrim volume: number 2 is available, but number 1 (the Pilgrim
volume) has not been thoroughly distributed (contributors received copies).
Honoraria are being granted to SFRAReview editors because of the tax
advantages it affords the editors. They provide a good deal of free work, and
having an "honorarium" (any term suggesting salaries would cause tax
problems for SFRA) allows them to declare their unreimbursed out-of-pocket
expenses, travel, and mileage on their taxes as a business expense. It is
recommended that this practice continue with future editors.

CONFERENCE UPDATES
2000 conference: Attendance and cost/profit are still being calculated.
2001 conference: Jan Finder has 22 paid memberships. A call for papers
will be issued this fall, with a timeline of October 15-February 1.
A request was made for a child-care announcement (i.e., that those who
need it make themselves known).
The Web site may be too "fannish" (e.g., too many exclamations
marks). Those who have suggestions please let Jan know so he can
make changes.

WORLDCON ACADEMIC TRACK

Sessions entitled “Out of the Classroom and into the Gutter” will attempt to explain fans to academics, and “Out of the Gutter and into the Classroom” will attempt to explain academics to fans. Ideas are still being sought. Contributions on Ben Bova, the guest of honor, are needed. Please contact Betty Hull and/or Beverly Friend.

CONFERENCE COORDINATOR

Should this be a duty of the new vice president? Should someone be appointed? This needs to be explored.

TEACHING ANTHOLOGY

For introductory classes, a text that is more approachable than the SFRA anthology is needed. Craig Jacobsen is willing to consider writing a proposal, with Karen Holekamp’s help.

Muriel Becker pointed out that, with the current emphasis on testing, the text will have to be supplemental, as high schools no longer have time to units in specialty literature. Whoever edits the book would be working with a textbook publisher who would be doing the market research. Could such a text be put on the Web site for electronic dispersal?

SUPPORT FOR FEMSPEC

The Executive Committee, in SFRA’s tradition of supporting scholarly journals, is contributing $250 to the feminist academic journal FemSpec. Its editorial board is also being offered a half-page space in the SFRA Review to advertise so that SFRA members may easily subscribe (at a reduced rate, if the journal’s board is so inclined).

NEW BUSINESS

Graduate Student Award: Elizabeth Cummins and Susan Stratton, who devised the award, asked that the official name omit the word “Graduate” as at least one undergraduate has asked to submit a paper. Moved, seconded, and approved.

It was also suggested that perhaps at some point in the future, the Award could be named after someone.

FemSpec display items: Batya Weinbaum asked that the mugs and copies of FemSpec that were on display at the registration table be returned.

Membership rates: It was requested that a “low-income” category be added to the student category for new Ph.D.s still job-hunting. Discussion centered on the difficulty of monitoring this category (proving eligibility, checking veracity, etc.). Scholar support might be applicable to this situation, at the discretion of the treasurer. It was also suggested that student membership could be extended for a year or two with a request—the Executive Committee will consider this.

Dues for past presidents: The by-laws say past presidents receive free membership when their term is up, but a decision was made sometime in the past to waive this (since Lowentrout? Since Mead?), but no one is sure of the facts. A committee to research the minutes of past meetings to locate this decision and, if necessary, to rewrite the applicable by-laws was formed of volunteers: Muriel Becker, Edra Bogle, and Batya Weinbaum.

AWARD FOR BEST CONFERENCE PAPER BY A STUDENT

In 1999 SFRA inaugurated an award for the best graduate student paper given at the annual conference. In 2000, this award has been changed to a student award, in order to enable undergraduate students to compete for the award. In addition to the academic recognition, the award carries a small cash prize. This year’s winner will be selected by a three-member committee: Shelley Rodrigo Blanchard, who won last year’s award, Liz Cummins, and Susan Stratton. To be considered for the award, you may submit a copy of your paper to Susan Stratton during the conference, or mail it by July 15, 2000, to Susan Stratton, English Department, University of Calgary, 2500 University Drive NW, Calgary, Alberta, T2N 1N4, Canada, or e-mail it as an attachment (MSWord) to <stratton@ucalgary.ca>.

ADDITION TO THE PUBLISHING OPPORTUNITIES LIST

(SFRA REVIEW #245)

Kenneth Andrews writes: Here in part is a message that I got today in response to my inquiry to Ariel (a Canadian journal) whether it considers submissions in SF (science or speculative fiction). The answer was positive. This journal is one addition to Neil Barron’s monumental survey of print sources for SF (journals and books) in the
BABY BOOMER TOYS

Michael Levy writes: SF author and New York Review of Science Fiction reviewer Mark Rich has just published 100 Greatest Baby Boomer Toys, a fabulous, full-color introduction to the wonderful world of Barbie, Mr. Potato Head, and GI Joe. Other toys discussed in detail, many of them science fiction–related, are The Game of Cootie, Mr. Machine, Billy Blastoff, Spirograph, Trolls, Robert the Robot, Gumby, Aurora Monster Kits, and Prehistoric Time Play Sets. Instant nostalgia! The book, which costs $24.95 and which recently premiered at WisCon, is available from Krause Publications, 700 E State Street, Iola, WI 54990-0001, or check their Web site at <www.krause.com/books/>.

EARLY CLASSICS OF SCIENCE FICTION BOOK SERIES TO BE LAUNCHED IN 2001

Arthur Evans writes: Here's an announcement that might interest some of you: Wesleyan UP has just announced a new book series entitled "Early Classics of Science Fiction" to be launched in 2001. This series will consist of scholarly editions of classic English-language SF and new translations of non-English SF—both featuring critical introductions, extensive notes, bibliographical materials, etc.—as well as monographs and other scholarly studies that...
Officer Statement: Vice President

Peter Briggs

I have been a member of SFRA for 27 years and a regular participant in our annual conferences. My scholarly work has included a Starmont Guide on J. G. Ballard, chapters in the Tailpringer Ursula K. Le Guin and Clarke books, and articles and papers on Anthony, Herbert, Lessing, Dishi, Sir Julius Vogel, Stephenson, and Le Guin in all three of the field's major publications—Science Fiction Studies, Extrapolation, and Foundation. I have written for Salem's Survey of Science Fiction Literature, Guide to Science Fiction and Fantasy Literature and Survey of Modern Fantasy Literature, St. James' Twentieth-Century Science Fiction Writers. I have served on the Pilgrim Award jury. I have taught an evolving undergraduate science fiction course at the University of Guelph almost continuously since 1972, and offered a senior honours course in science fiction in Christchurch, New Zealand, when on an academic exchange.

The vice president's role has traditionally focused on recruitment, and the Cleveland Conference demonstrates that we are at the beginning of a renaissance in membership. I intend to pursue our expansion through the Web site (where I would establish and service a direct e-mail contact for potential members) and strategically placed advertising, but I particularly want to focus on the fact that most members teach our potential members—students of science fiction. If we can, as individuals, draw the attention of potential members, and if we can find supportive ways of getting them to a first conference, we can complete our renewal. I should like to see some subsidy for deserving first conference participants and perhaps a motor pool through which those driving to the conference might help defray some new members' transport costs.

The discussions at the Cleveland conference's general meeting of the membership suggest that the vice president should also undertake some oversight and liaison with the organizers of annual conferences. I see the first step in this as the revision of the printed matter, "the book," which lays out the aspects of the conferences and clarifies the responsibilities of the parties. This, and assisting Webmaster Peter Sands in assembling the Web site materials, are further vice presidential roles.

As vice president of SFRA, I will be returning to the organization some thanks through service for the support and encouragement it has offered me through the years. After years of domestic upheaval and some illnesses, I am now in a position to serve, and with the possibility of the 2003 convention coming to my university, there will be a synergy in my participation. I welcome the opportunity of serving the organization as your vice president.

Officer Statement: Secretary

Kenneth R. Andrews

I am an associate professor of English at Philander Smith College, a historically black, Methodist college of 1000 students in Little Rock, AR. I work in Native American languages and hope to see my manuscript grammar of Shawnee in print in the near future. I will encourage existing members to renew their memberships, take accurate minutes, and distribute them on a timely basis to the board and the membership. I have been an active member of SFRA for four years.

Officer Statement: Secretary

Wendy Bousfield

To the position of secretary, I would bring experience in writing and editing and a passion for speculative fiction. As a reference librarian and English language and literature bibliographer, I am acquainted with electronic information sources. I am a long-time member of SFRA and have regularly contributed book reviews to the SFRA Review. I value the stimulating dialogue on the SFRA list and the members' willingness to become engaged with one another's research projects. SFRA has enriched my life, and I would welcome the opportunity to give back to SFRA what its members have


Officer Statement: Treasurer

Jake Jakaitis
At the request of past SFRA president Joan Gordon, I have agreed to run for SFRA treasurer. Since 1980, with occasional lapses, I have been a member of SFRA, but have more actively pursued my scholarly interests in science fiction through presentations at PCA/ACA national meetings and more recently through ICFA and the Eaton Conference and with Science Fiction Studies under the guidance of its previous editor, Dale Mullen. With this opportunity to run for treasurer of SFRA, I would like to become more active in the organization. Having consulted with the current treasurer, Michael Levy, I understand the responsibilities and time commitment of the position, and I feel confident that I can manage the existing Access and Excel databases and the SFRA budget. I'd like this opportunity to, in Michael's words, "get into the middle of things in the organization." I should mention, however, that I am scheduled for a sabbatical leave for the 2002–2003 academic year and could only serve a single term in the position.

Officer Statement: Treasurer

David Mead
I've served SFRA as secretary (four years) and president. I'll be glad to serve again as treasurer if that's your choice, and I'll do my best to do a creditable job.

SFRA ELECTION 2000

Please return ballots to Joan Gordon, 1 Tulip Lane, Commack, NY 11725, by October 15, 2000. No voting by e-mail is allowed. Please vote for only one candidate for each position. Detailed descriptions of the positions can be found in SFRA Review #245, March/April 2000, pp. 5–7.

President
Mike Levy
Batya Weinbaum

Vice President
Bruce Beattie
Peter Brigg

Secretary
Kenneth Andrews
Wendy Bousfield

Treasurer
Jake Jakaitis
Dave Mead

FEATURE

An Exhortation to SF Scholars
Samuel R. Delany

[The following is a slightly revised version of the keynote speech Samuel R. Delany presented to the SFRA membership to kick off the SFRA’s annual conference in Cleveland, Ohio.—Ed.]

This evening I would like to exhort all SF scholars to accept, as a group, the idea that SF is not a definable topic. It is a genre like other genres; and genres are not definable.

Needless to say, I have nothing against the content of all those "definitions" (read the word with a sous râteur line through it) that fill so...
many pages in the criticism of science fiction. I only exhort critics to start labeling that content for what it actually is: functional descriptions that apply more or less richly to a greater or lesser amount of science fiction in more or less interesting ways.

Specifically, I would like to see the more accurate term "description" start appearing in the vast majority of the places where traditionally we SF scholars have casually employed the phrase "a definition of science fiction," or "my definition of science fiction," or "his/her definition of science fiction." Now this is not some jejune accusation that we have all been using the word improperly for years, now: of course there are perfectly reasonable definitions of the word "definition" that cover the way most of us have been using it—meanings of definition that make it synonymous with descriptions that have a certain rigorousness of attitude, rather than a rigorous logical form.

I have no necessary beefs with the descriptive force of any given definition itself. The true object that I want us to get rid of might be called "the definitional stance," or even "the system of definitions" that, here in science fiction criticism, has for better or for worse been historically tied to that particular rhetorical habit of "searching for definitions." What I want to see end is a set of constraints the "discourse of definition" imposes on us.

When we search for a definition, we are looking for a universal, an essential, an essence. Thus the thing we look for is (by definition, not?) not the most interesting aspect of our object but the aspect most broadly distributed among our texts. Then we express this in the most generalized form (which is often one of the weakest forms) in order to make it apply still further. Take a look at the sentence Aldiss offers as his definition of science fiction in Trillion Year Spree:

Science fiction is the search for a definition of man and his status in the universe which will stand in our advanced but confused state of knowledge [science], and is characteristically cast in the Gothic or post-Gothic mode.

And one can find like descriptions in writers from Roger Zelazny to Craig Stephens.

Even when the expression comes out relatively crisply, such as Suviv's "Science fiction is the literature of cognition and estrangement," I simply turn around and ask you this: can you think of one piece of SF that has ever had anything memorable—or even interesting—to say about the way a given piece of SF demonstrates, bodies forth, or figures either estrangement, cognition, or both? (Or, by extension, aspects of any of the other definition you have ever encountered?)

No. You can't. (Not even in Suviv's book does this happen.) The reason you can't is because cognition and estrangement (not to mention literature) are here put forward as necessary and sufficient elements of a definition. And in the discourse of Western reason, definitions are not provisional dispositions for interrogation and exploration. Rather they are a bottom-line absolute, a zero degree of authoritative empowerment—the credential that allows the master to speak and that authenticates his speech—that drops out of the bottom of the argument, as it were, and "grounds" it while never actually entering into it. (To use another, more familiar topological metaphor, they function as a fixed center, from which they cannot be allowed to move.)

And this, as I said, is what's wrong with the system of definition, the definitional stance.

This is, as I've argued before, a problem of paraliterary criticism in general. Let me take my example from Scott McCloud's often brilliant Understanding Comics—an example that can be extended into his or his recent continuation of his argument in Reinventing Comics (2000). In those two books, McCloud posits a definition of art (quoted without its pictorial ironizing frame of panel art) that reads:

Art, as I see it, is any human activity that doesn't grow out of
our species two basic instincts, for survival or reproduction.

(Understanding Comics, p. 164)

He gives it again in a far more refined terms on pages 45-49 of Reinventing Comics.

Now my argument against definition in paraliterary criticism is fundamentally of the following nature:

One of McCloud’s treasured texts, of which he speaks repeatedly and for which he has both love and respect, clearly, is Jason Lutes’s two-volume graphic novel *Far of Fools* (1994, 1995). I concur with McCloud that Lute’s graphic novel is a fine, lucid, and important work. Nowhere, however, in either book, Understanding Comics or Reinventing Comics, is one sentence, even one panel, devoted to showing how or in what manner *Far of Fools* avoids “growing out of our species’ two basic instincts, for survival or reproduction.”

Again, the reason he doesn’t is not the content of his definition but the fact that the “system of definition” (because the definition is supposed to be self-evident, absolute, universal, an axiom that is opaque to further analysis) excludes the definition from taking part in any bit of the argument other than that which concerns itself with whether that content is or is not an actual definition.

I would relish a paper, my friends, that began: “Much science fiction functions through concepts of cognition, estrangement, and uses aspects of the literary to bring them about. Let’s examine how these are accomplished in *More Than Human, Dying Inside,* and The Stars My Destination.”

But that and like papers are precisely the ones that can never be written as long as “the literature of cognition and estrangement” is considered a definition of science fiction, rather than a more or less interesting, more or less powerful, more or less broad-ranging description of much—or, indeed, even most—science fiction.

There is a ghost of an interesting argument in Suvin’s thesis: estrangement (ostranenie) is (says Viktor Shklovsky) what literature does. Cognition is (says Darko Suvin) something other kinds of writing deal with.

Well, then: Why not take a literary novel that clearly engages in both (*Jane Eyre,* *A Rrowsmith,* *Strangers and Brothers*) and compare it closely and carefully to a science fiction novel (*The Space Merchants,* *Timescape,* *Neuromancer*) in order to show how the science fiction novel and the literary novel figure each of them differently—in different modes, in different fashions, and with different rhetorical devices.

Needless to say, this is not something Suvin ever tried. But nobody else has, either. What precludes such a critical undertaking is that “a literature of cognition and estrangement” is not perceived as a powerful, functional description of *much* science fiction, but is rather the definition of *all* science fiction. Definitions pervade and ground their genres.

They are what uphold “the law of genre” (as Derrida once described it, in an essay of the same name): “Genres are not to be mixed”—an impossible law that is always already violated, even as “no text can escape the mark or one or of several genres; there is no genreless text” (as Derrida explains toward the beginning of the same essay).

Whitman once said he was not much interested in God because He was everywhere and was at all places the same (like Pascal’s divine sphere whose circumference is nowhere and whose center is everywhere). For much the same reason, definitions that—within a genre—are postulated as total, universal, uninflected surrounds immediately lose their interest.

Those of you who know my critical work know that I have felt this way for more than 20 years now.

I promise you, however, when the word “definition” occurs in SF criticism as rarely and as informally as it does in every other area of literary-critical studies, then I will happily get down off my high-flown hobby horse and retire the sucker. But as long as “definition” is used as an initializing mark of mastery that empowers all further discourse to proceed (no matter that
the user flails blindly about, citing this informal usage and that in other literary studies as justification for using it here in science fiction, which is how it is how we see it daily, even weekly in science fiction criticism and how it is used in that otherwise admirable study The Metamorphoses of Science Fiction, I'll be yowling and howling.

The thrust of systematic definition is exclusionary. It is a way of setting makers that say, anything beyond this is no longer science fiction. But the fact is, right now our discipline is not so menaced by so many insupportable demands of inclusion that such exclusionary gestures are necessary: “Instead of considering X, Y, or Z as science fiction, I insist that you consider rather P, Q, or R as the proper study of SF.” Indeed, the general thrust of academic enterprise today is inclusionary and welcoming. I suggest we set ourselves up to take advantage of this situation—rather than foster outdated conventions that work to keep us apart from this most healthy aspect of the larger enterprise we are engaged in.

For, in paraliterary studies, the term definition is both rhetorically and discursively a different term from its lit-crit occurrences.

Basically what I’m saying is this. If we can give up the system of definition, perhaps we can retrieve some of the descriptive power and critical potential of all those “definitions”—but to do so we need to be acutely aware that it is precisely that power and potential that the system of definition excludes.

THEORY & BEYOND
Ed Mclntosh

UNLIKE such rigorous theoretical approaches to literature as deconstruction, psychoanalysis, or Marxism, reader-response criticism is less a single, unified method of literary analysis than a collection of varied approaches with one special interest in common: namely, the role of the reader in interpreting—or experiencing—a work of literature.

Philosophers from Plato to the nineteenth century recognized the central importance of the reader in their theories of art or poetry. Plato’s banishment of poets from his Republic was due as much to the unhealthy influence that poetry had upon the reader as to its suspect ontological status as an “imitation of an imitation.” Horace, on the other hand, saw the legitimate purpose of poetry as “to please and to instruct” the reader. In both of these cases, however (and for most of the two thousand years since) the reader is viewed as an essentially passive recipient of the work of art.

With Shelley’s declaration that poets are the “unacknowledged legislators of the world,” the Romantic movement of the early nineteenth century shifted the focus of literary criticism even more from the reader to the author. But it was not until the advent of New Criticism, with its focus solely on the formal elements of the text (to the exclusion of authorial intention and cultural or historical significance) that a consideration of the reader’s role in literary interpretation was condemned as the “affectional fallacy.” Now the reader had not even a passive role in the critical process.

Once a consideration of the reader’s role had been identified as a critical heresy, those who chose to focus on this aspect of the literary endeavor, whether from a structuralist, psychoanalytic, or phenomenological perspective, were grouped together under the umbrella term of reader-response theory.

Unlike their predecessors, however, contemporary reader-oriented theorists view the reader not as a passive recipient, but rather as an active participant in the construction of meaning. Regardless of the differences between the various approaches, however, a concern for the reader’s role in the process of literary interpretation can be remarkably—and
uniquely—fruitful in the study of science fiction.

Structuralism: The Reader in the Text

The various approaches to reader-response can be distinguished from one another according to where they place the locus of meaning: in the text, in the reader, or in the relationship between the two. Although some reader-response theories presume that a text possesses a fixed, determinate meaning that the reader may or may not correctly discern, others regard the individual reader as the source of meaning, whereas still others see meaning as a transaction between the reader and the text.

Even the most traditional of reader-response approaches can cast new light upon a literary work by acknowledging that the text itself calls upon the reader to be actively involved in the production of meaning, even if that meaning is assumed to be identical for everyone.

Amidst the plethora of different types of narrators that can be found in a literary text—first-person, omniscient, fly-on-the-wall, and so on—critic Gerald Prince calls attention to the easily overlooked existence of the narratee. This is the figure within the text to whom the text is addressed, as opposed to the actual reader of the text.

Sometimes this figure is more obvious than others: in "Story of Your Life," for example, Ted Chiang foregrounds the narratee by writing the story in second person. But even when otherwise invisible, the narratee shapes the story by means of the knowledge, experience, class, gender, and beliefs that the author attributes to him or her.

The unique relationship between the narrator and the narratee in science fiction makes this form of analysis especially interesting. Although it is often easy to overlook the role of the reader in a contemporary realistic novel, the very impossibility of a present-day narratee for a futuristic narrative forces us to pay attention to this figure. As Samuel R. Delany explains in The American Shore: "With the reader located firmly at the only real present, and the subject and the speaker organized out from that present, we see that the fictivity of the science fiction story is structured differently from the fictivity of the mundane fiction story."

The opening line of Jules Verne's Twenty Thousand Leagues Under The Sea (to choose just one instance) provides an example of this: "The year 1866 was marked by a bizarre development, an unexplained and downright inexplicable phenomenon that surely no one has forgotten." Since Verne's narrative is purely fictional, the reader—even Verne's contemporary reader—finds himself or herself in the position of that "no one" who has, indeed, "forgotten" the events of the novel.

Reader-response theory can also shed new light on a literary work through its capacity to view the text not as an object in space but as an experience in time. The "affective stylistics" of Stanley Fish is based, in part, on the fact that readers don't defer their interpretation of a story, a poem, or even a single sentence until the end, but constantly create meaning based upon limited knowledge. As new information is gathered, prior interpretations must be modified or rejected. While other critics might ignore this process, Fish sees the modification of prior interpretations as an inherent part of the text's meaning.

One example of this from science fiction is Joanna Russ' "When it Changed," in which the reader is led to assume that the narrator (who has a wife, goes hunting, and fights duels) is male, only to discover later that she is female. The experience of correcting this error is an essential part of the story, and one that can be more easily achieved in a science fictional narrative than a work of contemporary realism.

Psychoanalysis: The Reader as the Text

Although the reader-response approaches of Prince and Fish (in his early work, at least) uncover aspects of the reading experience that are invisible to or ignored by more conventional critical tools, they assume that the reading experience should be identical for all readers. Subjective
critics such as Norman Holland and David Bleich, on the other hand, begin with the fact that different readers inevitably produce differing interpretations of a single text.

Bleich concentrates primarily on the social and linguistic processes by which readers make their subjective textual experiences communicable and meaningful to others. In a classroom setting, according to Bleich, readers take their personal and idiosyncratic responses to a text and, through negotiation with others, produce a collectively meaningful interpretation that accords with the aims of the social group. In this model it is not necessary for readers to "correct" their initial response to the text, merely to bracket off those aspects of that response that are irrelevant to the group as a whole.

Holland, on the other hand, is more concerned with the individual reader's personal response to the text than he is with negotiated meaning. He accounts for the variety of interpretations produced by different readers through the principle that "identity re-creates itself." Borrowing the concept from Heinz Lichtenstein, Holland asserts that every reader brings a unique "identity theme" with him or her into the reading of a text, and it is this identity theme that will shape the reading experience.

Science fiction, perhaps more than any other genre, brings the two elements of unbending reality and wish fulfillment into conflict, making Holland's approach especially promising for the genre. If, as some critics have suggested, Tom Godwin's well-known short story "The Cold Equations" satisfies a male reader's suppressed desire to punish a woman, then the scientific laws that demand the stowaway's sacrifice become a means of overcoming the reader's defensive strategies, or of transforming the raw fantasy into an experience of "social coherence and significance."

Holland finds the most difficult part of the DEFT process to be the initial encounter of a new text with the reader's psychological defenses: "First, adaptations must be matched; and, therefore, we interpret the new experience in such a way as to cast it in terms of our characteristic ways of coping with the world." If readers are unable to process a text in such a way that their fears can be subdued by their own characteristic coping mechanisms, they will reject the text altogether. The perennial debate concerning plausibility in science fiction is perhaps a covert means of rejecting a troubling text.

The greatest difficulty raised by Holland's reader-response approach, however, lies in the fact that it foregrounds the reader, and his or her own identity theme, to the point that the text itself becomes invisible to the critic. A third approach, one that acknowledges the roles of both the text and the reader, may resolve this difficulty.

Phenomenology: The Reader and the Text

Occupying the middle ground between the structuralist and the psychoanalytical models of reader-response criticism is what may be the most promising reader-oriented theory for the analysis of science fiction: the phenomenological approach of Wolfgang Iser.

Developed by Edmund Husserl in the early twentieth century, phenomenology was intended to be a "science of consciousness" founded on the study of phenomena, or the world as it is actually perceived, rather than of an objective world that we suppose to lie beneath our perceptions of it. Needless to say, phenomenological criticism is more concerned with the reader's perception of a literary work than with the formal elements of the text itself.

The phenomenological method was applied to literary criticism by Roman Ingarden and Hans Robert Jauss in an attempt to account for changing interpretations of literary texts from one historical era to another. Their approaches were applied to the individual reader and introduced to the United States by Wolfgang Iser in *The Implied Reader* and *The Act of Reading*, where he views the written text as a kind of blueprint from which each individual reader produces his or her own "concretized" experience of the literary work. This is achieved by filling the interpretive openings, or "gaps," that all texts inevitably contain.

Like Fish, Iser also emphasizes the temporal aspect of reading.
For a far more complete listing of conventions, mostly fan-oriented, see Locus

NOTES ON ONLINE RESOURCES

Even if don’t subscribe to Locus (you should; $46/year, $85/2 years, for U.S. subscribers, to Locus Publications, Box 13305, Oakland, CA 94661), you can use its resources on the Web. Their site, <www.Locusmag.com>, includes much information from the printed monthly and additional information, such as more letters, not in the monthly, plus many links; <www.Locusmag.com/index>, a detailed bibliography listing all fantastic fiction books, magazines, and individual stories published since 1984; and the newest service, <www.locusmag.com/SF/Awards/> (case sensitive), which lists and indexes nominations and winners of all the major awards, and will add many minor awards by the time the listing is completed in November 2000. Locus also sells a handful of valuable CD-ROMs (see the magazine Web site for details, or write <Locus@Locusmag.com>.

Philip K. Dick is the subject of a large and growing secondary literature. A relatively comprehensive Web site is <philipKdick.com>, which now includes the Encyclopedia Dickiana, E Dika, and PDKWeb, all produced by David Hyde, in addition to news, articles, color reproductions of hundreds of editions of Dick's books, and Dick-written material.

FANTASY SCHOLARSHIP RECOGNIZED

The Mythopoetic Society, whose focus is the Inklings, gives annual awards recognizing scholarly achievement in two categories, each recognizing books published the preceding three years. The 1999 winners will be announced August 2000. Nominees for the Inklings studies award are as follows: Lionel Adey, C. S. Lewis: Writer, Dreamer noting that in the process of reading a text “we look forward, we look back, we decide, we change our decisions, we form expectations, we are shocked by their nonfulfillment, we question, we muse, we accept, we reject.” Each sentence in a literary text “opens up a particular horizon, which is modified, if not completely changed, by succeeding sentences” (Iser, The Implied Reader).

But Iser departs from the affective stylistics of Stanley Fish in his acknowledgment that different readers will fill the gaps in a written text in different ways. Iser describes the relationship between the written text and the reader’s realization of the text by likening the literary work to the sky at night: “The ‘stars’ in a literary text are fixed; the lines that join them are variable.”

In Iser’s theory of reading, there is no conflict between the different interpretations of various readers; there is, however, a tension that exists between the polysemantic nature of the text as it exists on the page and the consistency which we, as readers, require. According to Iser, although a text invites any number of readings, we as readers seek but one at a time. Because of this, there is a tension between the numerous possibilities which the text has to offer and our own desire for consistency.

Iser’s phenomenological approach is particularly useful for the study of science fiction because that the gaps in a science-fictional text can exist not just on the level of plot and character, but in the setting itself. In a contemporary realistic text, the reader must fill the gaps between specific plot points, or perhaps in the psychological motivations of the fictional characters, but the fictional world itself often has no such gaps—or, more accurately, it is often left as one vast gap to be filled by the reader's own world, a generic or "everyday" background to be ignored. In a science-fictional text, on the other hand, the contextual gaps in the setting must be filled by the reader as much as the narrative gaps in characterization and plot.

In the opening paragraphs of Philip K. Dick's The Man in the High Castle, the reader listens in on a telephone conversation between Mr. Tagomi, a Japanese bureaucrat, and Robert Childan, a San Francisco antique dealer. In addition to using the clues from the conversation to construct images of the characters and their relationship to one another, the reader must also recognize the fact that, in this fictional world, the United States has lost the World War II, and the West Coast is occupied by the Japanese. Rather than simply filling in the narrative gaps against a passively assumed and familiar background, then, the reader must construct an entire world from the center out, based upon the textual clues provided by the author.

Interpretive Communities

In recent years, various reader-response theorists have turned to the concept of what Stanley Fish terms "interpretive communities" to more fully account for the diversity of readers' interpretations of literary texts. Fish has moved away from his early belief that all "informed readers" will arrive at the same answer to any question about the text, but in the setting itself. In a contemporary realistic text, the reader must fill the gaps between specific plot points, or perhaps in the psychological motivations of the fictional characters, but the fictional world itself often has no such gaps—or, more accurately, it is often left as one vast gap to be filled by the reader's own world, a generic or "everyday" background to be ignored. In a science-fictional text, on the other hand, the contextual gaps in the setting must be filled by the reader as much as the narrative gaps in characterization and plot.

Ironically, although Fish uses the concept to account for diversity of interpretation, Holland sees membership in a particular interpretive community as a means of accounting for similarity of interpretation between individuals with different identity themes.

Perhaps more than any other genre, science fiction cultivates its own interpretive community of readers through conventions, letter columns, and e-mail discussion groups. The effect of this community on the reading, as well as the writing, of science fiction, is one more area in which reader-response criticism and science fiction offer a promising field for further inquiry.

Works Cited


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**Panel Discussion at the SFRA Annual Meeting**

Karen Hellekson: This is a panel about *The Children Star*, a novel by Joan Slonczewski. It’s being recorded for publication in the SFRA Review. We’re going to open up the floor for discussion almost immediately, but I’ve asked for a little help to ensure lively discussion. Up here with me are Mike Levy, Sandy Lindow, Joan Slonczewski, of course, and Craig Jacobsen. Let me begin by giving a brief introduction. Joan Slonczewski was born in 1956 and went to Bryn Mawr, where she graduated magna cum laude in biology, and she received a PhD from Yale in 1982. Her dissertation was about *Escherichia coli* bacteria. She’s done postdoctoral work and continuing education work. Presently, she’s at Kenyon College, where she’s a professor in the department of biology, where she continues working on the molecular biology of bacteria, and she’s presently receiving some funding from the National Science Foundation. Joan won a Campbell award for her novel *A Door into Ocean* (1986), and some of the characters from that text appear in some of her later books. She has two novels that feature Quakers communicating with aliens: *Still Forms on Foxfield* (1980), her first published book, and *The Wall around Eden* (1989), which is about Quaker teenagers escaping captivity from aliens after a nuclear war. Joan published *Daughter of Elysium* in 1993, and her latest book, *The Brain Plague*, is very soon due to be out. Craig Jacobsen, who coeditor the SFRA Review with me, has read the galleys, and he seems excited about it. We’re going to drop teasers about *The Brain Plague* throughout this discussion so everyone will rush out and purchase it.

Craig Jacobsen: We’ll try not to ruin the ending.

Karen Hellekson: *The Brain Plague* is the sequel to *The Children Star*; it’s about the microbes. *The Children Star* is about the planet Prokaryon (pro-CARE-ee-yon), which is a planet that is not hospitable to human life, and people who wish to live there have to be life-shaped in order to live there. Some people there are undergoing that process, and they take children from other worlds and bring them to Prokaryon to live and work. But unfortunately, the people who are living there are asked to move because an administrative body wants to commit ecocide: they are basically going to terraform the whole planet. Everybody thinks that there are intelligent "masters" living on the planet because of weather patterns and very orderly ways that vegetation grows, so it’s a race against time to identify who these hidden masters are, and how they can be communicated with. Actually the hidden masters are what Joan calls "micromen," small microbial bacteria life forms, who live inside a host. Finally, communication is made, and it turns out that they have something to offer to this future, far-flung race and their civilization: they are able to life shape people with very little work. That’s a very quick summary of the plot. We’re going to open up the floor immediately.

Bruce Beattie: I just got through reading *The Children Star*, and I know that the things you discuss are in your field, Joan. From my limited scientific and mentor, Joseph Pearce, Tolkien: Man and Myth—a Literary Life; Tolkien’s Farmer Giles of Ham and Riverandom, both edited by Wayne G. Hammond and Christina Scull. Nominees for the Myth and Fantasy Studies award include: Alan Lupack and Barbara Tepa Lupack, King Arthur in America; Christine Poulson, The Quest for the Grail: Arthurian Legend in British Art, 1840–1920; Michael Riley, Oz and Beyond: The Fantasy World of L. Frank Baum; Carole G. Silver, Strange and Secret Peoples: Fairies and Victorian Consciousness; and Jack Zipes, When Dreams Come True: Classical Fairy Tales and Their Tradition.

**Call for Approaching Feersum Endjinn**

The September/October’s Approaching title is Iain M. Banks’ *Feersum Endjinn*, and the November/December’s Approaching title is Parable of the Sower, by Octavia Butler. Please send your contributions (short study guides, links to URLs, essay questions for student papers, 500-word essays on your approach, ten questions for class discussion, or anything that you like) by the 15th of September for Feersum Endjinn and the 15th of November for Parable of the Sower. Please send all contributions to Karen Hellekson and Craig Jacobsen, SFRA Review editors.

**NEW SFRA Review Editors Announced**

The SFRA Executive Board announces that they have appointed Shelley Rodrigo Blanchard and Barbara Lucas to a three-year term as editors of the SFRA Review, and they sincerely thank Karen Hellekson and Craig Jacobsen for their work the last three years.
knowledge, I have trouble with the notion of sentient microbes. I wonder if you could comment about the biological possibility of it.

Joan Slonczewski: It's interesting that the reviewer of both Children Star and Brain Plague said, "Well, you know that intelligent microbes can't exist, but—". The question is, first of all, what constitutes an intelligent species? In the third millennium, we define a human being based on its IQ. There have been many definitions of what a human is over the centuries, but there seems to be an assumption that we define what is human based on what is intelligent—that is, how many connections there are in your brain. If you look at the argument in the AI [artificial intelligence] community—is it possible to have a microscopic computer? The answer to that is yes. Could you have something that's the equivalent of a desktop computer that's on an atomic scale? Certainly, yes, that's coming now. We already have computers we wear in our eyeglasses. So the question is, how far can you go? I have on record at least one quantum physicist at Kenyon who says yes, you could have enough neuronal connections in the size of a microbe 100 microns cubed, say, to possibly have an amount of connections equivalent to a human brain. I would agree that it's far-fetched, but that's never stopped science fiction writers. I think you're right: that particular idea is particularly far-fetched, but some of the other ideas I use are not far-fetched, and I'll try to identify those—like the idea of human-chimp hybrids. That's actually a reality; that's going to happen. It used to be far-fetched, but now it's in the cards. By contrast, intelligent microbes: that is far-fetched.

Michael Levy: But I think you go a bit further than making that idea possible than, say, Isaac Asimov made his ideas possible in Fantastic Voyage, stories like that.

Joan Slonczewski: Yes. I would say that in Fantastic Voyage, the idea of microscopic people was basically a device for imaginatively exploring the human body. Once you got over that device, what he was doing was very interesting, and from his basis in chemistry, Asimov did pretty well. The idea of an intelligent micron in terms of the connections necessary—there is at least a reason to propose it, if you do the theoretical calculations. Part of it depends on how many connections you believe the human brain has. It used to be thought the number of neurons determined intelligence. Then they realized that each neuron had a hundred different connections, so they said instead that what was needed were a trillion different neuronal connections. Now they're thinking that there are maybe ten times that many cells in the brain and it's not just the neurons. So it's a race between how complicated the human brain is versus how complex you can build a computer.

Sandra Lindow: Is it how many connections, though, or self-awareness?

Joan Slonczewski: That's the issue that, of course, Heinlein raised in The Moon Is a Harsh Mistress. At what point could a machine become self-aware? There's a whole debate about that. One of the current assumptions is that once you reach a certain number of connections, sentience is either possible or perhaps even inevitable. That is, if you subject a sufficiently complex neural network to selection and self-induced and interactive development, perhaps it's inevitable that such a being would develop self-awareness.

Sandra Lindow: A recognition of the self as a power in the world that can act and be acted upon and a desire to keep on existing.

Joan Slonczewski: That's right. In terms of artificial intelligence now, the big thing in robotics is making robotic systems that increasingly mimic living organisms and learn by interacting and making mistakes with the world. To my mind, as soon as you do that, it's pretty much inevitable that eventually you'll get something complex enough to be sentient. Hans Moravec has written a couple books on that; the title of one is Robots: Mere Machine to Transcendent Mind. The reason I think it's inevitable is simple logic. Humans are machines built of organic molecules. We evolved and eventually became intelligent, along with lots of other animals that have intelligence, though not quite to our level. Therefore, it seems to me logical that other complex machines that we are developing and subjecting to evolution are eventually going to produce something intelligent.

Karen Hellekson: One thing that I'm particularly interested in in your work is the humanization of science. In this particular text, you articulate it in a couple of ways I found interesting. Your character Jum talks about prime numbers being numbers without children, and when the Sharer gives a lecture to a group of fellow researchers about life forms that she has discovered, she says, "Look, these two cells are falling in love and they're going to procreate." I never thought of little cells as falling in love. I just found that extremely interesting, the way you're taking the science and putting a human spin on it. Is it a way to teach children, maybe, or a way to make people understand complex things?

Joan Slonczewski: Certainly. It's like when you teach at the kindergarten level, each letter is a person, and numbers end up being taught the same way: you count strawberries. You humanize. And that's one thing you can do in science fiction: you can humanize. I also like sometimes to break down the dichotomy between hard or kind of dead science and live science. I think people who are interested in numbers think of numbers as colorful and musical, and so on.

Sandra Lindow: You're saying there's an aspect of synesthesia involved? When you're deeply involved in some subject, it makes other connections for you.

Joan Slonczewski: That a very interesting idea. I think you're right: when you're deeply involved in a subject, you apply other senses to it. I also think that people outside science don't realize the sense to which scientists are person-
ally involved with what they study. This is particularly bad with people who work with computers and completely anthropomorphize computers. In fact, the more you know about computers, the more you do this. Psychological studies have shown that people who know computers very well treat the computer, according to all the psychological phenomena, the same way they treat people. So whether computers are intelligent or not, we already treat them as if they are. But for example, Barbara McClintock, when she won the Nobel prize, said that the corn she studied should have won the prize with her. She openly expressed this, whereas some scientists hide it in their public presentation, because the language of science is very objectifying. But in the laboratory, it’s completely the opposite. She (McClintock) was willing to actually put that in public. That’s something that Sarah [the Sharer in Children Star] does in her approach to the science. She talks about the organisms in a very different way than the other scientists do.

Susan Stratton: This isn’t a criticism of your presentation at the opening, Karen, it’s an observation taking off from the human side, recognizing that there are so many sources of interest in the novel that you couldn’t fit them all into the introduction. But you mentioned nothing about Brother Rod and his life and his story. I wonder if people who have taught the novel find that the students are more interested in one aspect of it than the other. Karen’s presentation suggested the large-scale kind of interests and not the particularly human scale.

Michael Levy: I think Brother Rod serves at the beginning of the book as simply a viewpoint. He’s the only normal human being in the whole darn book, almost. Everybody else is either a raised simian, or a sentient machine, or is only this big, or has a severe learning disability of some kind or another. He’s the closest thing to the reader that we’ve got. I think that kind of character often is less interesting in some ways, but he’s still the person whose eyes we see things through. His reactions.

Karen Hellekson: I like the way that Brother Rod is linked to the micromen at the end. I found it kind of funny the way the micromen took on the qualities of their hosts. For instance, the ones that inhabited a bureaucrat were extremely interested in protocol; you must flash colors in a particular order because that is correct. With Brother Rod, they were experiencing crises of faith and wishing to communicate directly with God. I saw that an articulation of Rod’s hope that somebody could make decisions and those decisions would always be right. But that never happened. Even his direct superior, Reverend Artemis, would not bring a question to their religious leader because she knew what he would say and she didn’t want to hear him say it. Rod saw this flouting of authority and became a little disturbed by it. I found a lot of Brother Rod’s concerns connected with his microbe’s concerns as well, and it all has to do with who is in authority, who’s in charge, I feel something and that thing is wrong, so how do I put together what I feel with what is supposed to be right. I really appreciated that discussion because it really, again, helps humanize a lot of the science that we really enjoy talking about. It’s wonderful to have books that are written by scientists because we learn so many wonderful things, but the humanness behind the story is what really makes us engage with it.

Michael Levy: That also ties in with some real science. Just in the last month there have been stories in the paper about discovering that bacteria can actually pick up genes from their hosts. They can actually incorporate the actual genes.

Sandra Lindow: There’s some information about this: there’s neural tissue throughout the entire body, and they think the heart has a kind of primitive brain. There’s neural tissue in the heart. There’s some reason to believe that those people who have had heart transplants are on some level remembering events that occurred to the person who had the heart previous to their having it. It sounds weird, but scientists are actually considering these possibilities. So it’s not that far-fetched that the microbes would take on characteristics from their hosts and come up with conclusions about that. But they live very fast, don’t they?

Joan Slonczewski: A couple things here. In terms of the fast reproductive cycle of microbes, that’s true generally, particularly of microbes that inhabit people. They would have a generation time of a half an hour. That’s why when you get food poisoning, you get it so fast. Now, tuberculosis bacteria has a generation time, or a doubling time, of a week. That’s considered long, and it takes a long time to develop tuberculosis. But in general, pathogenic microbes have short, rapid doubling times. That’s the secret of their rapid success. That’s true of real-life microbes.

In terms of the relationship of the microbe and the host, there are several different levels to look at this. The biological level: there are many examples of real pathogens that take on host characteristics as part of a protective mechanism. If they can coat themselves with proteins that are similar to the host’s, then the host’s immune system won’t recognize them and won’t kill them, so it’s like camouflage. In the test tube, we are using bacteria and viruses to carry human genes as vectors in gene therapy, and we’re using bacteria and viruses as medical therapeutic agents—for example, salmonella and poliovirus are being used to treat cancers. Polio is being used to treat brain cancer, to eat brain tumors.

This is at a time when the World Health Organization has a campaign to eradicate polio, and if they eradicate it, then they’ll want to get rid of all stocks, just like they want to get rid of all smallpox stocks. Isn’t that just like in The Children Star, where they want to get rid of this planet and all the pathogens? At the last minute, they discover that the pathogens might have something to help them. This is actually happening in the real world now: we’re finding out that pathogenic organisms can be used therapeutically. So that’s the real-world biology of it.

In addition, what I tend to do is have a biological level and a cultural level on top. From a cultural standpoint, I thought of the microbes as being like if humans in a given environment were given gods. There’s the idea that a
culture has the traits from its god: Athena had Athens, the city of wisdom, and the war god would have a warlike culture of people. Of course, the irony is, it's probably the other way around: people created the god based on their culture. But still, that idea is kind of mirrored in The Children Star.

William Senior: I was struck by the fact that this book is something of a kissing cousin to Greg Bear's Blood Music. It deals with some of the same types of thing in there. The genesis of that book comes out of the research being done to train cells and information theory at the same time, and it puts the two of them together. Basically what happens is the cells take over and they tell Virgil Ulum, "Boom, you're God," and they take him over and they change him and fix him. The cells amass enough intelligence that they become everything.

Joan Slonczewski: Blood Music I'm familiar with, and Bear set that in a more contemporary setting. It was interesting how he dealt with current research to do that. Conceptually, the major difference between his concept of microbial intelligence and mine in The Children Star is that his microbial intelligence became a universal intelligence, a sort of hive mind, whereas in my case, I developed microbes that had individual personalities—not only individual populations, but within each population, there were individual cells that were individually intelligent. I think not all readers picked that up in the ending to The Children Star, because it wasn't fully developed. But here's an example: the microbes, when they first got into Rod's brain, tried to take him over, and then they changed their minds and said, "We threw the ones who wanted to do that out of power and now we're doing it differently." So you get hints that even within a population, they think differently. In Brain Plague, that's developed to a much more detailed extent, so that it's clear you're talking about individuals within societies.

Sandra Lindow: They have leisure time; they don't just do this work, they go to nightclubs too, so each of the individuals has a personality that's distinct from others, and they have goals and aspirations; they resolve problems through negotiation and what appears to be town meetings.

Joan Slonczewski: Right. In Brain Plague, that's developed in more detail.

Sandra Lindow: That's a peculiarly Quaker kind of approach, right?

Joan Slonczewski: Some of them are Quakers! In real-life biology, this is an interesting question. The continuum between the sort of hive-mind large-scale organism versus individual intelligence or individual cells—that continuum is being challenged in many ways. For example, a bee colony: is that one organism or do the bees behave as individuals? The answer is both. The hive is one organism, and yet even within that, the bees compete with each other because they don't completely share all their genes.

And you can show both dynamics, even in a human body. It's one organism, and yet individual cells can go off and be cancers and compete with other cells. This is a very interesting biological idea. And bacteria now are showing to have a certain extent a hive approach, the so-called biofilms. The bacteria that live on your teeth are cooperative biofilms. They have little organ structures within the multibacterial structures built on your teeth. That's why it's so hard to get rid of them. I know you didn't want to hear that. It's a very hot field in bacteriology today.

Michael Levy: One of the things I always like about Joan's books is that as wild as the theorizing can get, they are all very much concerned with real-world issues. One of the things I like about Children Star, for example, is, it's dealing with an issue that many of us in this room are uncomfortable about, which is the overpopulation issue. I send hundreds of dollars every year to UNICEF and CARE and Feed the Starving Millions. Is that a good thing to do? Well, yes, it seems to be, but there are people who argue that we are better off that those people not be fed. That's a major issue raised in the book. You've got this one planet which is the thing pushing the whole need to terraform Prokaryon. We've got this planet where basically they don't practice birth control. The whole planet is like Haiti.

Joan Slonczewski: You're talking about the L'ite planet, where the children come from to be settled on Prokaryon. The L'ite planet was based on my experience visiting Brazil thirty years ago.

Sandra Lindow: So they've fouled their nest. Do they deserve another one?

Michael Levy: Who's more important? What about the immigration policy in the United States today? How many people should we let in?

Joan Slonczewski: And the other side of that is the underpopulation problem, which are the Elysians, who were more developed in Daughter of Elysium. But today, that's a real thing too. In Europe, America, and Japan, we are undergoing population implosion. Italians will be extinct by the end of the century. The overpopulation versus the underpopulation is a very interesting topic, and I try to show both sides of that. The Elysians are the extreme in that they live for a thousand years and have hardly any children at all, but yet they spend all their time building these machines, and so in a way the machines become their children. That's exactly where America is going. If it weren't for immigrants, we would be imploding too.

The other thing, though, is that L'ites are us too. The reason you have the green hills of England is that England used to be a forest, and they cleared out all their forests. So after clearing all our forests, we want to go to Brazil and tell them not to clear theirs. That's a dilemma too. But in The Children Star, the one chapter that people tend not to notice is the one where the industrialist, Nibir, is first introduced, and he meets with Verid and Iris. The chapter is like a whole course in economic environmentalism, because every point of view you could have is raised. Unfortunately, for me,
I'm so familiar with those ideas, that this scene contained just a sentence for each one point of view. Most people didn't understand that and they thought that Nibur was just the villain. In fact, he has a lot of questions that the others can't answer, like, what are you going to do if we don't terraform this planet? What do you propose to do? What do you propose to do with Brazil?

Sandra Lindow: You said that Nibur was Charles Rubin backwards?

Joan Slonczewski: Yes.

Sandra Lindow: Who was Charles Rubin? Forgive me.

Joan Slonczewski: He was a visiting professor I knew at Kenyon College, and he's written a couple books on antienvironmentalism—why environmentalism (as he defines it) is a bad idea, because he claims it's intellectually untenable. His book is called "The Green Crusade: Rethinking the Roots of Environmentalism." He makes some good points, such as the fact that most of us environmentalists can't name all the species that live right outside our own doors. How many of you know the names of all the wildflowers, like in the British novels? And yet we claim to be environmentalists.

Sandra Lindow: I'm not sure that that's a good argument, but go on.

Joan Slonczewski: I think it's good to read all viewpoints, because people are going base policies on it. There's something called the Wise Use movement that says, why shouldn't we cut down the sequoias and use that land to farm trees? We have to read where these intellectual ideas are coming from because some people follow them. And part of the place they're coming from—is that to be credible, environmentalists have to have a workable plan. Nibur claims that the Spirit Callers' plan isn't working. It's one thing to tell people like the L'ites they shouldn't have so many children, but once they are there, what are you going to tell them? You have to find a way to provide for those people, and so Nibur says, "My way to do it is, I'm going to terraform this planet." One of the things he points out is that you can't call the Spirit Callers' settlements real, not until the settlers start giving birth. They claim that they're lifeshaping children to live on Prokaryon, but it turns out that giving birth is much harder, biochemically, than just living in an environment. When the Spanish conquered Peru, they couldn't live in the high mountains, or if they did, they had to send the women down to the lowlands to give birth, because genetically, they were incapable of giving birth at that altitude. The oxygen tension in the blood wouldn't permit it. So they could live in an environment, but they couldn't give birth there. So what Nibur is saying is, they've made it possible to live on this planet, but they can't give birth. It's not a real solution.

Verid's answer to that is, that's what scientists are for. Our scientists work day and night to solve these problems. I think you have to give Nibur his due. He's saying, look, you don't have a solution; I have one. She is saying, well, we don't have one yet, but we're getting there. Verid's whole point of view in this whole book is, let's get by until we get an answer. While she's presented positively, she doesn't have an ultimate answer. At the end of the book, this comes back. At the final meeting, where they say that they are going to let the planet live, she thinks to herself, but what's going to happen? If everybody has these colonies of microbes, now everybody's going to come to Prokaryon and they're really going to wreck it. She says that that's a problem for another day. We'll put that one off.

Sandra Lindow: She's always balancing like that. It's like she's on a seesaw.

Joan Slonczewski: That's how real statesmen are. It's like President Clinton, right? That's his genius. He never gives everybody everything they want. He gives the gay community this much and says that that's all he can do for now. Then he gives the environmentalists this much. That's what it takes to be a real-life statesman, and you end up getting canned for it, as Verid does at the end. She ends up basically in prison. That's the thanks she gets for it.

Kenneth Andrews: I was talking to a veterinarian technician and she happened to mention during the conversion a species survival plan [that some species will be helped to survive, whereas it's too late for others]. The hair on my head just raised up because I was horrified. I had never heard of such a thing. I asked who had made this decision. I had never heard of this. Had you, Joan?

Joan Slonczewski: It's called Triage.

Kenneth Andrews: Yes, but who has made this decision? What government bureaucrat has made the decision to draw up a survival list? Who's talked about this? Who's discussed it? Who has decided who is going to live and who is going to die?

Joan Slonczewski: I don't know that there is any one plan. Each conservation agency makes its own plan. The Sierra Club makes these decisions all the time, so does the Nature Conservancy. If you donate late to the Nature Conservancy, they say, let's look at this land. Here's a bit that's worth saving. Here's a bit that we'd rather sell off, and use the money to save a more valuable bit. If you're a conservationist, you're in Triage. But this kind of thing dangerously close to the choice that Nibur recommended, and that's why Iris agreed: because it's a logical choice. It's like he said: there is quality land in terms of low diversity and higher-quality land of high diversity. We'll keep that part and terraform the other part. Whether that particular decision was good or not, only time will tell or God will know.

Karen Hellekson: What's interesting too is the way you have the micromen controlling the ecology of their planet. We're talking about people from the outside like Nibur coming in, but the micromen are the ones who control their own planet. They have the land arranged in swaths, with certain breeds of animals and plants in certain places, and
they’re also the ones who control the weather. It seems like they have an incredibly complex system designed to control the planet to make the environment be what they like. They are able to make lightning strike invading ships, which requires quite a lot of complex cooperation using a lot of complex models of organization in an attempt to control it all. Actually, I was hoping you could speak a little bit to the ecology of the planet: everything being round, donut-shaped, tire-shaped. How did you think up the ecology and manage to link it all together?

Joan Slonczewski: The first point: the idea of the microbes controlling the weather to the point of causing lightning strikes was a bit of a stretch. However, there is a lot of evidence that microbial physical characteristics cause rainfall. There is a theory, in fact, that there would be no rain without microbes in the dust. So there is at least some scientific basis for microbial involvement in the weather. They’re doing cloud seeding with Pseudomonas now.

In terms of the ecology, in terms of bashing things on circles: at least on the molecular level, life is full of circular structures. On the Web study guide for The Children Star, I have pointed out a couple of those. Even the basic energy-generating molecule in our own mitochondria has been demonstrated to be a wheel. Our mitochondria are full of these little pinwheels that generate energy. We’re full of wheels. That was kind of where I got the idea of a circular body plan.

One interesting biological idea that you can develop with students based on this is, if life happens to evolve in a certain way, whether it’s bilateral symmetry or wheel-shaped, it will tend to continue along that pathway, so you’ll evolve out of that different variants of that. So there are variants of the circle on Prokaryon: circular trees, circular predators, circular grazing animals. You can relate this to real-life evolution. For example, you can think of Australia as a separate planet for part of its evolutionary history. In Australia, you had the pouched mammals evolving, and they evolved into kangaroos, wombats, marsupial mice, marsupial tigers. So you see that divergence from a common body plan. That’s something students might be able to relate to and appreciate better after seeing it in a science fiction setting.

Sandra Lindow: So life will evolve to fit every possible niche?

Joan Slonczewski: “Every” is a pretty absolute word! For the most part, it’s anyway there is to make a living! To put it in human economic terms: where there’s a buck to be made, somebody will make it. If you can make a buck sharing music over the Internet, somebody will come up with a program to do it. In life, energy is money. Anywhere there is a way to eat food and survive, some organism will evolve to do it. Based on the physics and chemistry, chances are, they will evolve more or less similar things.

A marsupial tiger is completely different genetically from a placental tiger. Genetically, they are very different animals. But if they both have stripes, it’s because stripes are an obvious camouflage device that evolved, although if you looked at them in detail, they wouldn’t be the same exact kind of stripes, you see. So there will be a tendency for whatever niche is available to be filled, but not in exactly the same ways. My favorite one is the vampire finch on the Galapagos Islands. There are no predators for the mammals, but they are so stupid that they will let a bird sit on them. So some of the finches evolved to peck animals and lick their blood.

Susan Stratton: This question was just trigged for me from the fact that the micromen were recognized as intelligent by the fact that they were manipulating their environment—changing the weather, changing the growth patterns. I was thinking of the lengths I thought you went to make the point in Door into Ocean that the ethical thing was not manipulating but cooperating with the environment. I realize sometimes it’s a fine line. But did you think about that difference or does it strike you as a real one?

Joan Slonczewski: In Door into Ocean, it’s not that the Sharer’s don’t ever manipulate. They supercontrol their environment. If they see that one species is getting out of balance, then encourage the predators for that species. There’s one sequence where they’re seeding the raft with snails from another raft. Merwen goes out on a boat and tends the environment. When the soldiers come and they spread poisons, then the Sharers genetically alter the sea monsters, the sea swallowers, to withstand those poisons. The difference is that for the Sharers, nothing is ever one way. They say that they accept the fact that the sea swallowers will eat some of them.

The Sharers are not intended to be living in a utopia, but it’s not really. It’s not a utopia if sea swallowers are going to eat you up and leave you motherless or childless. That was one of the reasons I put Sarai into Children Star. She’s a rebel against the Sharers. She’s the disaffected Quaker. She lost her wife and children to the sea swallowers and said, the heck with this, I’m going to live somewhere else. I tried to make it explicit that the inevitable result of what the Sharers did [in A Door into Ocean] would have to be that there would be dramatic genetic effects on their world. All the creatures on Shora had to have been genetically affected by the Sharers. They were such powerful manipulators, they couldn’t have helped themselves. But what makes it different is that they allowed themselves to be manipulated in term, and therefore there’s some kind of equilibrium.

Craig Jacobsen: So what you’re talking about maybe is the difference between a parasitic relationship and a symbiotic relationship.

Joan Slonczewski: Yes. That’s actually a very good way to put it. The distance between a parasite and a symbiont is not as far as people think. There’s a whole gradation between symbiont and parasite. One the one hand, you have the mitochondria that become essentially a part of our own bodies, and on the other hand, you have parasites that kill
their hosts. I think humans have a choice about how parasitic or symbiotic they can be. When we set aside the redwoods, we're being symbiotic. When we say we're only going to log the 300-year-old redwoods and not the 1000-year-old ones, then we get more parasitic. In the case of the Sharers, I wanted to show that while they're symbiotic with their environment, they're not perfectly symbiotic. There's potential to go either way there, which also means there's potential for other people to choose to be symbiotic or parasitic—that others could choose as the Sharers did.

Sandra Lindow: The basis of quantum mechanics is that you can't observe without changing the thing you observe. That’s the most basic level, isn’t it?

Joan Slonczewski: Well, I don't know enough about quantum theory to get into this—

Sandra Lindow: I'm saying you can't even observe without being affected by your environment.

Joan Slonczewski: You can't observe without being changed in turn. That's right. One view of quantum mechanics is at the basis, the observer, as a subject, is indistinguishable.

Sandra Lindow: That seems to be going on with your writing because those lines are being constantly blurred. It's a constant moral decision: how many rights to the micromen have? If they become an infestation, if their colonies become sick, then they get wiped out, in Brain Plague, for instance. But it's a serious moral decision about whether or not that should happen. When I was reading the manuscript for Brain Plague, it struck me that it's almost like the kind of decision-making that a woman goes through when she thinks about having an abortion. Here’s life, and this life may be threatening me. I could die if I had this baby. Were you affected by those kinds of considerations when you writing it? What was going through your head when you were thinking about what rights the micromen have?

Joan Slonczewski: That’s a good analogy. That’s one comparable dilemma. But I also think about the language that we use: the war on diseases; exterminating microbial invaders. It’s the same language that we use to talk about exterminating people. It makes me wonder, what would we do if these microbes were known to be sentient beings? How would we treat the common cold? How would we treat AIDS? Because I work with bacteria all the time, I find it an interesting question.

Peter Hollis: Perhaps we try to conduct a truce and have them act as parasites on us, but until then, they’re the enemy.

Joan Slonczewski: You're right. That's exactly what we would do. We would try to negotiate. Interestingly, that is exactly what our own bodies do. That is what our immune systems do. They negotiate with the invaders. If you look over many human generations, many human lifetimes, the typical course of a plague infection is like the Black Death. It wipes out a lot of people. Then it mutates to become less parasitic so that it can live in the host, causing less bad disease. At the same time, the host mutates to resist it more. They achieve a truce. Why doesn't the Black Death wipe out whole populations anymore? Because it's not as virulent, but also because humans are more resistant than they were in the Middle Ages.

Peter Hollis: With respect to the Black Plague: is it that, or is it that the most vulnerable of the human population died, and the most resistant stayed alive to pass on their genes?

Joan Slonczewski: It's both. There's scientific literature on that. It's extremely complicated, but it looks like both human resistance evolved and the bacterial strains became less virulent—both those things.

The same thing is true whenever you introduce a pathogen in a population. Viruses were introduced to kill off rabbits in Australia. They became attenuated, and the rabbits also became resistant. It's happening to AIDS right now. In the populations where you find the most AIDS virus, it's selecting for resistant people, but also the virus is beginning to develop versions that are latent for longer periods.

Peter Hollis: And strains that are also more drug- or treatment-resistant.

Kenneth Andrews: You had mentioned this early on—the human-chimp hybrids. I read maybe a year, a year and a half ago of a Chinese scientist who claimed that he had impregnated some kind of higher ape with human sperm, and apparently there was a pregnancy, although the fetus was destroyed before it came to term. Do you know about this?

Joan Slonczewski: For years, we heard stories like this, and it was always China. It was always that the Chinese were going to make the chimp-human hybrids. Maybe now it's really true.

What’s funny is that the creation of chimp-human hybrids was a joke for years and now today, it’s going to happen, and it won’t be the Chinese who are doing it. It will probably be NIH [National Institutes of Health] that does it, in the sense that chimp genes will be incorporated into humans for gene therapy, and human genes will be studied in chimpanzees. This idea is relevant to The Children Star in that I have a running theme in my books of gorilla-human hybrids, and one of the main characters is such a hybrid. Kharl has a very different take on the micromen. She says that she's half-animal already, so what if the micromen are animals? They can still be people. From that standpoint, it’s an important subtheme.

Peter Briggs: My students and I had a good deal of difficulty around the religious group that sponsors the mission. They couldn’t put a finger upon it at all. They would say "religion," and then they would back off. What did you have in mind? I read Still Forms on Foxfield a long time ago, and I know you’re interested in Quakers, but I don’t think I saw the Quakers particularly in that group. They seem much vaguer, more like spiritual altruists or something. What’s the line
Joan Slonczewski: I had in mind less the Quakers than the Catholic missionaries. I deliberately tried to avoid pointing things in a direction because I didn’t want it to be seen as directly Catholic. I think the film The Mission really shows the best and the worst of the missionary and colonial tradition. I recommend the film highly to anybody who is interested. However in The Children Star, I was very sensitive about religious implications, particularly at the end, where Rod and Reverend Mother Artemis both rebel against the hierarchy. I didn’t want this to be seen as anti-a particular religion. I wanted to avoid too much of one particular religious reference. That is why the image of Reverend Mother Artemis comes out of a completely different tradition. She comes out of ancient Greek mythology. I just found that idea so interesting—the idea of a multibreasted goddess and that the temple to this goddess was one of the Seven Wonders of the Ancient World. Yet you never hear about it in the standard patriarchal Western literature. I thought I would bring in that reference for once. What I’m realizing is that students are increasingly secular. We’re getting students who come to Kenyon who don’t know what a Testament is—either Old or New, they don’t know what it is. I can see how they would have had trouble with that, which is too bad, in a way. I think you’re right. I didn’t get into all the cultural details that I might have.

Peter Brigg: The issue was around what religion achieves rather than what it believes. You can do good for spurious reasons. In other words, there ain’t no God, and you can’t trust the archbishop, but you nonetheless can do good.

Joan Slonczewski: Well, that’s Quaker! But I think it’s something that Quakers share with everyday Catholics. In my view, almost every religion has to have some of that today: we don’t know exactly what God is, but we know we have to do right. You can’t be in a religion in Western society and use the Internet and not have some sense of dissociation. That’s my personal view. You have to have this vast gap: I know the miracles didn’t really happen and yet I believe they absolutely happened, and I’m going to move on. That has to be there.

Bruce Beattie: I’m interested in questions of intertextuality sometimes, and simply because I read them very closely together, I was wondering to what extent—if at all—Brother Rod and his sacred brethren in Children Star had any relationship to Mary Doria Russell’s Jesus in The Sparrow and Children of God.

Joan Slonczewski: Indirectly, they did, just in the sense of the Catholic inspiration, I would say.

Bruce Beattie: Did you know that? Did you read Russell before you wrote Children Star?

Joan Slonczewski: No. I was familiar with James Blish’s Case of Conscience, and obviously Shogun, by James Clavell, which I think is even better. The Jesuits have a wonderful portrait there. I would say again the movie The Mission is wonderful, if anyone is interested in this tradition.

Let’s remember to discuss nanotech.

Karen Hellekson: Yes, let’s! What would you like to say?

Joan Slonczewski: Again, that’s an obvious recurring theme in my books: that human technology will become increasingly cellular and that our machines will be based on cellular elements, and the machines that are based on those, their relationship to humans. Certainly, this is something I have developed, if anyone has questions about it.

Karen Hellekson: In Children Star, many of the characters are actually sentient machines who ascend. They become self-aware, and then they have to be freed. But this is not true for nanotech. I was wondering why that is, or why it’s politically unwise to do that. You allude to that very briefly, but it caught my interest.

Joan Slonczewski: Of course, what this refers back to is, in Daughter of Elysium, where you had the revolt of the machines. The Children Star takes place a couple of hundred years later and that problem has been settled. So humans that can awake and declare that they are alive, the rule is, they are free. It’s like if a slave broke free from his master and went to Canada, he was free, in the slave era in this country. In this case, if a machine could declare that it was awake and escape from its master, it was free. That’s the compromise that has been reached.

It’s one answer to the question, how do you know if a machine is awake or not. I’m saying, if it says it’s awake, it’s awake. This is a very enlightened move in a way. I deliberately made the main machine character to be the Reverend Artemis, who was the most organic and the most fertile character, and yet she’s a machine, to make the point that the machines could have any capacity.

But nothing is perfect. There are limits to what the humans will tolerate. So the limit is, if the machine is too small, they’re not going to recognize it. There has been a political compromise made. In real life, that’s true. For example, you can have gays in the military, but they can’t tell it. That’s a political compromise. I find that interesting. I always find interesting the ideal being realized, but then the compromise.

Peter Hollis: Looking at nanotechnology and looking at intelligent bacteria, you are looking at intelligence at a micro level. There’s still a distinction in my mind between animal intelligence and machine intelligence. My question is, do you make a qualitative difference? To my thinking, machine intelligence is of a completely different order of magnitude, and whether a machine intelligence develops self-awareness or not, it’s not the same thing as the self-awareness we exhibit. We have a biological imperative that demands we reproduce. I don’t think that’s true in machines; at least, it’s not been demonstrated. However, with bacteria, viruses, slime molds—whatever you want to use as a model—it is a biological imperative. Can you speak to that?
Joan Slonczewski: You’re saying that there will be a different kind of intelligence in any organically evolved creature versus in a machine.

Peter Hollis: Absolutely.

Joan Slonczewski: So the viewpoint in my books is really just the opposite: that living creatures are machines, whether they are built of carbon or of silicon, and that if intelligence is based on a threshold of information connections, then machine intelligence would be, in theory, indistinguishable from animal intelligence.

Peter Hollis: Could you comment on the injection of a biological imperative into that dynamic?

Joan Slonczewski: The machines that we have now are built by machines. Machines build themselves, literally if not yet autonomously. That’s what researchers are doing in AI now: they’re trying to build self-replicating machines. We already have that. A computer virus or a computer worm is a self-replicating entity that obeys all the epidemiological patterns of a virus in a biological system.

Peter Hollis: But that’s a creation. That’s not an evolution. A computer virus is a man-made creation. It’s not something that evolved on the Internet.

Joan Slonczewski: They can evolve. But it’s not entirely clear. I suppose that the way the Melissa virus evolved is that different hackers have added different things to it, and then you could say that it’s just like the environment causing selection on animal evolution.

The other thing is, you can create a program that will evolve. That’s already been done. You can create evolution in silico—a self-evolving program that nobody could have ever created or built. In fact, you can create a program that will evolve into programs that are so complex that no programmer can explain how they work, but they work more efficiently than the original program.

Should I say that again? You have a computer program that generates its own errors in its code. It makes many different copies of itself with different errors. Now, some of those programs perform the task of the program better than the original parent program. Those then go on and replicate themselves with errors again, and generate new programs. Again, some of those will perform better than the previous generation. At the end, you wind up with programs that no programmer could have designed, because you don’t even know how it works exactly. You can’t explain the code. But it functions better than the one that the human originally programmed. Is that evolution or is it not?

Elizabeth Hull: But is there devolution as well as evolution?

Joan Slonczewski: There’s degenerative evolution, which is just another form of evolution. Degenerative evolution is, if you don’t use it, you lose it, because mistakes will accumulate at random rather than being selected for the better mistakes. That’s why many cave animals don’t have eyes. Over many generations, mistakes accumulate, so the eye structures don’t form properly. You don’t have to spend the energy to develop an eye if you’re never going to use an eye.

Bruce Beattie: There’s an interesting example of—I’m not sure whether it’s machine intelligence exactly, but certainly something along that line, and with a biological imperative, in Orson Scott Card’s Ender War series, where a character develops in the ansible network. It’s not even clear she’s a machine. She certainly develops something like a biological imperative. She certainly has a drive for survival, and she doesn’t exist anywhere! It’s not like she’s in a machine somewhere; she’s in that incredible imagined network of interstellar connections.

Joan Slonczewski: The inverse of this question is, do humans still have a biological imperative? That’s the question we were getting back to. The countries with the most developed machines are the ones where the human race is dwindling. It’s related to the fact that we’re more interested in machine-based careers than in raising kids. It used to be that raising kids was the thing that everybody did. But now that you have a choice not to raise kids and you have all these interesting careers to choose from, people are choosing their careers and their machines rather than raising kids. The ultimate extension of this is Elysium. But that’s already happening.

Karen Hellekson: But doesn’t someone say that the biological imperative isn’t necessarily to reproduce but to get off the planet and reproduce Earth on other planets—the sort of Gaia theory. That’s why intelligence has evolved. It’s Earth’s way of seeding itself by sending little rocket ships out and we go terraform other worlds and commit ecocide, but we procreate, and that would be our real imperative. In which case, I would say we need to get cracking because I really would love to go out into outer space and it’s not a career choice right now. It’s very disappointing.

Joan Slonczewski: I just spoke at that National Space Society meeting, the former L-5, where you would think it was a career choice, to hear them. But remember, it’ll be machines taking us out there. Or maybe the machines will go themselves. That’s what Hans Moravec thinks: that the end result of Earth will be that humans will build the machines and the machines will say, “We’ve had enough of Earth.” Then they will be the ones who will go out.

Karen Hellekson: Especially if we can’t break the light barrier. It would take so darn long to get anywhere, sending machine would definitely be the way to go. I have a loaded a question. Do you consider yourself an ecofeminist, and why or why not?

Joan Slonczewski: Do I consider myself an ecofeminist. It depends on what sense you mean that. I would say yes in the political sense. Basically I vote for whatever candidate will keep the environment, because if a candidate is going
to support the environment, and because we all inhabit the environment, chances are that people and families will do well. So politically, I would say yes. However, in terms of issues that I'm interested in, I'm interested in a lot of ideas, and you have to truly believe different points of view to write them. You almost have to believe opposite things at the same time to create believable fiction. That's why I recommend that people read the Ruben book, Environmentalism. I found that I understood my own position better when I thoroughly understood the opposite position.

Susan Stratton: This is a cheat sheet [The handout with study questions to which Susan Stratton is referring appears after this transcription. —Ed.], but some of the questions on this handout really interest me. The question about what level of intelligence is necessary for a species to deserve ethical and legal consideration and how do we assess intelligence given the possibility that communication may be difficult or impossible. I'd like to shift over to this: is intelligence the only measure of a species deserving ethical and legal consideration, and if not, what else, might be?

Joan Slonczewski: I'm glad you raised that, Susan, because I started the discussion with an ironic comment to that effect and I'm glad that someone picked up on that that should be ironic. I think that it's a very modern concept: that what is worthy of preservation is based on how many neural connections you might have. The Native Americans believed that the Black Hills were worthy of preservation because they were the Black Hills. That was a very different concept. On the other hand, today you have Peter Singer, who believes that rocks may need ethical consideration, and that animals might be better or more important to preserve than infants born brain damaged. This is a field of controversy. There's no one answer to that. I tend to use that assumption mainly because it's the one that people latch onto the most, but it's a really good question to raise.

Sandra Lindow: Koko the gorilla has a verbal IQ, tested with the Binet, in the 90s. Does that mean we bring Koko into the voting booth and ask her to vote?

Joan Slonczewski: That's what Jane Goodall would say. She has founded a foundation for the legal rights of the higher apes. This is a very serious project. There's a school of animal rights law at Harvard right now that is producing cadres of lawyers trained in this field, and we're going to be seeing these kinds of questions.

But Susan's question goes even beyond that. Sandy, your question is still based on level of intelligence. You're saying Koko passed an IQ test. What about, say, plants, which are just beautiful but which don't pass an IQ test? Perhaps we should judge if things have the right to exist based on beauty, or things having nothing to do with intelligence. That broadens it out. The sequoia trees. Why do they have a right to exist?

Joan Gordon: I wanted to mention a recent book called Lives of the Animals, and it explores some of these ideas in terms of issues about vegetarianism, paralleling, or at least suggesting parallels with apartheid.

Kenneth Andrews: My problem is, I don't really understand why anything has to justify its existence. Why should any animal or any plant have to justify itself in respect to me? Doesn't it have a right to exist in and of itself?

Craig Jacobsen: The practical answer seems to be that humanity is Godzilla. Unless you justify a reason to exist to us, you won't.

Karen Hellekson: That's because what humanity does is alter its environment. If something is not suited to the way we plan something, we do without it or get rid of it.

Kenneth Andrews: I think what we have to look forward to in the next hundred years is environmental catastrophe on a scale unimaginable: melting icecaps, the world becoming a desert.

Joan Slonczewski: You're right. There's an ongoing environmental catastrophe, and human biology is the central cause of the current environmental catastrophe.

But we should keep it in perspective. And this is not to excuse or say we shouldn't do anything. Remember, every living species has the potential to do such a thing. As Michael Crichton pointed out in Jurassic Park, a major environmental catastrophe was the cyanobacteria evolving to produce oxygen! The production of oxygen was the greatest poisonous waste product that Earth had ever seen, and it wiped out most of what was alive then. Of course, new ecosystems evolved.

That's not to excuse what humans were doing. The comment that Verid makes at the end of Chapter 8. Nibur says an asteroid could do the same thing as the terraforming. He says, aren't we worth more than an asteroid? If an asteroid can do it, shouldn't we do it for our own purposes? And she says, aren't we better than an asteroid? Can't we find a better solution? Those are the two different viewpoints. As humans, we can say that we are so good or so important that we deserve to use the Earth any way we can, even if it means destroying it. That would be the Ruben point of view. The other point of view is this: as humans, we're so good and so intelligent, we should be able to come up with an alternative that's better than what an asteroid would do.

Karen Hellekson: What comes next, in Brain Plague?

Joan Slonczewski: I need to thank Mike and Sandy for all their help with Brain Plague.

Karen Hellekson: This concludes the panel. Thanks, everybody, for coming!

Joan Slonczewski's study guide to The Children Star is at <www2.kenyon.edu/depts/biology/slon/books/Children_Star/cs-guide.htm>. It includes an "author button" for students to ask questions about the book, especially
about aspects of science that they (and their teacher) might find challenging.

APPROACHING THE CHILDREN STAR

**Questions for Writing and Discussion**

Craig Jacobsen and Michael Levy

The following questions were handed out to generate discussion at the panel. They may also serve as general questions for discussion as essay questions.

1. Discuss the social hierarchy presented in the novel. Where do various groups (Sentients, Spirit Callers, Sharers, Simians, etc.) rank, and what does that tell us about the book’s interplanetary society?

2. The novel presents a variety of permutations of gender relationships. Discuss how these are different from or similar to those in our own world, and what the implications are in the novel.

3. Explore the nature of childcare in *The Children Star*. Who is responsible for it? What form does it take? How are the notions of child rearing presented similar to or different from our own?

4. Children are an important element of Slonczewski’s novel. The Spirit Callers rescue and care for them, and their education, health and welfare are a recurring issue in the story. A cynical reader, however, might argue that the children are treated as commodities: the Spirit Callers collect them because they are most economically lifeshaped to the hostile environment of Prokaryon, where they are put to work; the L’ites refer to them as “ethnic treasures,” the Sharer “adopts” one in return for her healing services.

5. The initial plan is to “cleanse” and terraform just a portion of Prokaryon. If it leaves a significant portion of the biosphere intact, is this plan a justifiable compromise? Consider the economic and social pressures to colonize Prokaryon.

6. The Spirit Callers abhor the idea of terraforming Prokaryon, and yet they maintain a colony there that affects the environment. Discuss whether the Spirit Caller colony is an acceptable use of the planet.

7. The micromen are initially mistaken for a disease. Only their ability to communicate with humans keeps them from being destroyed. Are their any implications here for the battling of terrestrial diseases caused by, for example, bacteria, which are living?

8. What level of intelligence is necessary for a species to deserve ethical (and legal) consideration? How do we assess intelligence given the possibility that communication might be difficult or impossible?

9. The realization that the micromen are sentient is not, in itself, sufficient reason to halt the destruction of their biosphere. Only when their potential value to humans is discovered are the plans halted. Discuss the implications of this in terms of both the novel’s storyline and our own world.

10. Science fiction is often said to be less about other times and places than about the here and now. Discuss how you think *The Children Star* reflects on current issues in our world.

**Nonfiction Review**

**Alien Plots**

Adam J. Frisch


A Dutch feminist theologian offers an intense set of multiple readings and rereadings of the 1975 Tiptree novella, “A Momentary Taste of Being.” She employs various postmodern strategies to dissect this story about a group of Earth colonists aboard the spaceship Centaur who encounter an irresistibly seductive alien presence near Alpha Centauri and who end up combining with the alien “like sperm with ova” to form new, “posthuman” beings that eventually float off into interstellar space. Although Van der Spek’s analyses are frequently difficult to work through, she finally offers a number of informative insights about Tiptree’s novella, about Alice Sheldon’s overall work, and about postmodern feminist theory in general.

She begins by noting her fundamental interest “in how women think about love and death, suffering and well-being; how they give expression to a quest for meaning and wisdom; and how they imagine the divine.” Although recognizing that Sheldon labeled herself “a lifelong atheist,” she nevertheless believes that some of the insights of postmodern feminist theologians can shed light not only on this Tiptree story, but on Sheldon’s overall “ fascination for
evil and violence on the one side, and the anger and pain about women's suffering on the other." She first examines the overt plot, as seen from the point of view of its male protagonist, ship doctor Aaron Kaye, then rereads the novella from the implied, "silent" viewpoint of Aaron's sister, Lory, whose "innocent idealism" Aaron both betrayed and confirmed by an act of incest when both were teenagers. Van der Spek then uses various postmodern theological commentaries to examine biblical echoes from Exodus to Revelations, eventually establishing both the "horrible and hopeful aspects" of the story's final apocalyptic "taste of being."

Van der Spek is as interested in pulling together and commenting upon postmodern feminist and theological speculations as she is in analyzing one Tiptree story. In this approach lies both the strengths and weaknesses of this critical study. On the one hand, she calls forth a remarkable international assortment of theorists, from apocalyptic theologians such as Frederick Kreuziger to feminist writers such as Julia Kristeva. A knowledgeable Sheldon scholar, she uses the frequent twists and turns within the novella and other works to suggest strengths and weaknesses in many of the theories she cites. But sometimes those theories and Tiptree's story seem more to "force" rather than clarify each other. Her theory/story dialogues often illuminate, but they sometimes obscure.

Like much of the postmodern criticism it cites, Alien Plots is difficult and is strictly for the dedicated scholar rather than the more casual Tiptree enthusiast. Yet there is a fine range and scope of knowledge for those willing to persevere through 441 footnotes across 211 pages. Not only does Van der Spek eventually clarify many perplexities, but she also manages to make a convincing case that Tiptree uses so many male protagonists in all of her works because "for whatever reason, many of Tiptree's stories cannot bear to articulate directly the pain and the desire of women, and therefore require more reading between and behind the lines ascribed to male voices." I know that van der Spek's observations about how Tiptree uses the biting humor of the grotesque to undercut her male narrators, and thus force such interlinear readings, articulated for me a precise tone in many Tiptree stories that I had never before been able to pin down in words. That insight alone made me glad to have encountered Alien Plots.

NONFICTION REVIEW

Space and Beyond

Richard E. Chany


Jack Williamson, in the second of the twenty-three essays in this book, mourns the displacement of Hoyle's steady-state theory of the universe by the more entropic and chaotic Big Bang theory. The essays here taken together reflect a tension inferred by Williamson's opening observation and expressed in the book's introduction, the tension between the value of established and comfortable patterns and the pressure to adapt to changing and complex patterns.

Space and Beyond doesn't purport to be a unified and concentrated treatment of the frontier theme. Most of the essays were first presented at the joint 1997 SFRA/J. Lloyd Eaton conference in Long Beach, Calif. They focused on outer space and the frontier, and they vary widely in subject matter and theme. Readers interested in more narrowly focused and comprehensive works about the frontier theme should consult Richard Slotkin's Gunfighter Nation: The Myth of the Frontier in Twentieth-Century America and David Mogen's Wilderness Visions: The Western Theme in Science Fiction Literature. Both works are substantive, and the second is an expansion of Mogen's Wilderness Visions: Science Fiction Westerns (Borgo, 1982).

The essays are grouped in four sections flanked by an editor's introduction and a final section containing brief and interesting observations on space and time and a transcript of a panel discussion with Sir Arthur C. Clarke held via telephone. Some essays are rather loosely connected to their sections' themes.

The contents of the first section discuss how SF has grappled with the enormity and unpredictability of the frontier of space. Much of the writing here looks at SF narrative traditions such as space opera, and it simultaneously reveals a human propensity to reduce that which is overwhelming and complex to more familiar patterns, whether those patterns be scientific or literary. Jack Williamson also confronts the possibility that space exploration, at least for the 20th century, will be tediously slow at best and ultimately untenable at worst.

The essays in the second section again reveal an impulse, this time in film, to return to more familiar territory when faced with the unyielding realities of space. Of all the sections, this is the most unified not only in subject matter but in the overall treatment of the frontier theme. Much of the writing here situates the idea of the frontier within Western tradition; the frontier of space, evoking (often appropriately) a sense of dread, invites a return to more familiar narrative patterns and comfortable visual perspectives of Renaissance tradition and Western ideology. Other elements of the American frontier motif also appear, such as the tension between man as explorer and the frontier as enemy.

The next group share a more literary focus. Aside from the first essay, which briefly applies the quest narrative to SF, all the other essays discuss works of particular SF writers, and all relate their discussions to the frontier, though
some, like Alan Elms' striking psychological study of James Tiptree and Cordwainer Smith, more peripherally than others. The final section, "Other Frontiers," presents perspectives on areas which have recently become frontiers, such as cyberspace, as well as speculation on areas which could develop into frontiers.

Though wide ranging in perspectives on space and frontiers, *Space and Beyond* is an archive of often interesting and entertaining reading. The contributors throw new light on familiar patterns, and their work highlights the ongoing challenge for writers and scholars of SF to accommodate new patterns of knowledge and understanding into established traditions.

**NONFICTION REVIEW**

*Licence to Thrill*

Joseph Milicia


This review doesn’t contain any sentence as good as this from the London *Times*: “There are two kinds of academic texts: the kind that contains photographs of Ursula Andress wearing a bikini, and the kind that do not. *License to Thrill* falls, fortunately, into the first category.” (There are 40 black-and-white photos, only one of Andress.)

When Chapman tells us, as early as his acknowledgments page, what his three favorite Bond films are, we know that we aren’t going to get an Althusserian approach to Bond ideology. But he doesn’t gush and makes good on his subtitle, in that he documents the original reception of each film and speculates on the relation of each to the Zeitgeist, whether Swinging London, the Thatcher ‘80s, or the rising and falling temperature of the Cold War. He considers in detail the sexism and sometimes racism of the films, along with the more flagrant racism of the Ian Fleming novels, but he doesn’t deny the various pleasures that both films and novels give him, and he’s resolutely nontheoretical in approach.

Chapman’s sometimes a less than lively writer, explaining the obvious, as when he tells us that when the targeted hero in the lead-in shots, “the red wash represents an assassin’s blood.” But the meticulousness has its benefits: Chapman gives careful reports of costs and box office receipts, quotes from many reviews for each film (especially those reflecting typical attitudes of the day), points out how each differs in plot and tone from the source novel (when indeed there is any connection beyond a title), and makes sensible comparisons between the films’ various villains and “Bond girls.”

His survey is thorough, current to just before the release of *The World Is Not Enough*. For American readers, *Licence to Thrill* may well be most valuable for its British perspective. Chapman makes us aware of how the brash and breezy style of *Dr. No* (1962) anticipates Beatles-and-beyond London; describes how a Bond film on TV was a British Christmas day tradition for many years; notes that the actors who portrayed the Thatchers at the end of *For Your Eyes Only* were already popular impersonators of the Iron Lady and her spouse; and most important, he argues in great detail that all Bond films reflect in various ways British attitudes toward their loss of empire and political clout.

Chapman includes a chapter on the Fleming novels, with emphasis on their connection to the British tradition of the spy thriller of the John Buchan sort. He also considers the films’ generic patterns, distinguishing the conventions of the thriller from those of the action film and arguing that the Bond films to some degree form a genre of their own, much imitated and parodied. And he does point out the SF elements of several films, notably *Moonraker* (my favorite, though clearly not Chapman’s), with its battle in space as well as more typical techno-menace plot.

Overall, the serious reader may not be stirred and almost certainly will not be shaken by *Licence to Thrill*, but will surely learn a few new things about the films and will give thought to Chapman’s speculations about why the series has remained so phenomenally successful despite huge cultural and political shifts over the past four decades.


**NONFICTION REVIEW**

*Critical Theory and Science Fiction*

David Samuelson


As Carl Freedman (English, Louisiana State University) acknowledges, one defines SF in how one reads it.
For him, its value and relevance lie in its continuation and embodiment of critical theory. Not a new argument, it still holds sway in *Science Fiction Studies*. Nominally rooted in Kant, his "critical theory" is essentially Marxist, with nods to Freud and poststructuralism (as modified by Marxism). Its object is a totalizing vision of the world, essentially subversive of the status quo. To square that goal with a largely escapist mass entertainment medium, he names pulp fiction as one "filiation" of SF, whose real defining tendency lies recessive or dormant in all literature. To elaborate that tendency, he modifies Darko Suvin's "cognitive estrangement" by replacing cognition (testing of SF against real science) with a "cognition effect" (i.e., the text takes the science seriously).

To explain SF's exclusion from the literary canon, Freedman points to the New Critics' elevation of poetry over fiction and the wholesale generic exclusion of SF since it came to self-consciousness in this century. Countering traditional demands for a unique personal style, he posits the "radically typical" style of Philip K. Dick ("the greatest of all science fiction writers"), routinizing strangeness at every level from its diction and sentence structure to its invention and metaphysics. That SF which inherits the mantle of critical theory must challenge consensus reality with "historically concrete" imagined worlds. In the near-contemporaneous publication of *Frankenstein* and *Waverly*, Freedman strains for consonance with Gyorgy Lukacs' valorization of the "historical novel," pointing out SF's dependence on history, although "temporality" plays a very small role in Shelley, Poe, and Verne. Stressing "alterity" over forecasting, Freedman sees E. R. Doctorow's *Ragtime* and Don De Lillo's *Libra* as radically science fictional in form (paralleling the canonized Dante, Milton, Kafka, and Beckett). Invoking Ernst Bloch's utopian imagination, he finds it better embodied even in conservative SF writers (Asimov, Clarke, and Heinlein) than in overtly utopian literature's dictatorial blueprints. In his final assault on the canon, Freedman identifies worthy recent SF writers, whose case attentive SF critics have also taken on.

Rather than proving his case, Freedman illustrates it with capable "excursuses" on five post-1960 novels. Representing SF outside the United States, Stanislaw Lem embodies the provisional nature of knowledge in the meta-science fiction of *Solaris*. Cognition (not the "cognition effect") is also central to Le Guin's *The Dispossessed*, which single handedly revived the positive utopia. Joanna Russ' *The Two of Them* demonstrates the natural affinity between SF and feminism. "The most intellectually ambitious work in the entire range of modern SF," Samuel R. Delany's *Stars in My Pocket Like Grains of Sand*, interrogates all manner of difference and otherness (including sex, race, ethnicity, and nation), paralleling Derridean and Heisenbergian uncertainty in an examination of the urge to "manage" a civilization spanning 6000 worlds. Their predecessor, Dick's *The Man in the High Castle*, although obliquely SF, embodies its critical historicity. All five raise demanding questions about conventional constructions of our material world while also exposing their fictions' "solutions" to critical analysis. Freedman seems to see the future of critical theory in doubt. Taken as art more than science, it can less easily than ever sound the alarm in the face of a global capitalism which coopts both theory and art. As a case in point, cyberpunk (or the idea of cyberpunk) saw more widespread acceptance outside than inside the SF community, largely because it acceded to globalization and personal interaction with computers.

There is much that I can agree with in this book, but Freedman's arguments are not watertight, even if you grant him the supremacy of critical theory (and of Philip K. Dick). The "cognition effect" does not exclude true believers in pseudoscience or the supernatural. Some ghost stories and "modern fantasy" take intrusions of the impossible seriously, and measuring a story's "belief" may be harder than learning science. Science dates, like all human endeavors dependent on shared meanings, perfect consistency is possible only in a closed loop like religious doctrine.

Literary traditions change slowly, and SF continually shifts ground. By the time conventions gain widespread acceptance, they are already museum pieces. Given limited room in the canon, an academic convenience, a place there is hardly worthwhile if it means freezing SF's always changing (and never realized) potential. Besides, it is all a nefarious plot by the powers that be, what good is another defense of the "critical utopia" (Tom Moylan's term)?

Other questions also arise. If generic dismissal is reprehensible, is a generic defense the answer, or do we sell specific books and authors, more or less betraying the collectivity of the genre? If canonical acceptance is a hard sell, is getting theorists and SF writers to accept each other any less of one? Freedman recognizes that few theorists pay SF much attention, whereas relatively few SF writers create serious extended critiques of the hand that feeds them. Those who do, like the handful treated in this book, are exceptions to the rule, and even they are relatively superficial in treating character and situation, because of the global nature of their concerns.

Although Freedman argues the need for descriptive analysis, his book is morally prescriptive, advocating what SF should be to fulfill his dreams. If Marxism and psychoanalysis show continuity with SF, it may be partly because they are frozen enough in history to make acceptable literary conventions. If Marxist criticism actually needs rescuing by science fiction, however, it is in a parlous state indeed.
NONFICTION REVIEW

**Future Females**
Ellen Nigby


This sequel to Barr’s *Future Females* (1980) begins by quoting Jonathan Lethem’s hope that the 1973 nomination of *Gravity’s Rainbow* for the Nebula might indicate that the genres of fiction and science fiction were about to be merged. She regrets that SF hasn’t won the literary community’s acceptance as a serious genre, but notes that other critical engagements have been more fruitful, and her new book demonstrates how much interplay there is between SF criticism and nonliterary theoretical work.

The 1980 book largely emphasized essentialist feminism in literary modes of analysis (author/genre studies), whereas this new book takes its cue largely from the voices of antessentialism and moves beyond author/genre analysis. Rather than consolidating an identity claimed to be “women’s,” it speaks of gender roles more than feminism, cyborgs rather than robots and humans, disruptions of the classic genre of utopia, and worldviews no longer circumscribed by the dualism of Cold War ideology. Its critical approaches are those of cultural studies, of critical theory, of postcolonial studies, and of subaltern and ethnic studies. These approaches often disrupt essentialist definitions of gender, of humanity, and of genre, and the ways these categories affect and effect those of race and ethnicity, and vice versa. Further, the perspectives represented are used in various ways so that no perspective seems like a cookie-cutter analysis. The essays usefully supplement the excellent full-length studies of Robin Roberts (The Feminine Eye) and Jane Donawerth (Frankenstein’s Daughters), which deal directly with the constraints and possibilities of the genre for those writing from a feminist perspective. They also usefully connect to theoretical works such as Jenny Wolmark’s *Cybersexualities* that make use of cyberpunk in its argument about current social perspectives on gender.

Nonetheless, Barr wants to leave out the disappointment Lethem’s prediction leaves to SF criticism. She likens Lethem’s hope—without its disappointment—to her hope that the 1980 book would help feminist SF criticism find its way into the broader field of feminist theory. In this new anthology, the criticism meets and merges with feminist theory, analogous to Lethem’s desire for the genres of fiction and SF to merge. But Barr cannot rid the project entirely from the consequences of this new alliance. The book’s trajectory, according to the preface by James Gunn and Karen Hellekson, “disguises” the ideology of feminism and enables it to “nurture and embrace the Other.” The Other here most directly refers to the essays whose methodologies make use of postcolonial and ethnic studies. The implication in the preface, however, is that this study maintains an essential connection between women and nurturing, and it is not clear that these critics of the next generation see their projects that way at all. Gunn and Hellekson end up reinscribing a standard essentialist feminine identity in a text that largely rejects this as a theoretical position. The new approaches are clearly causing some growing pains and confusion in the field. The foreword emphasizes that SF is the genre of change, but it sometimes forgets this in its own analysis. This points to a tension, not in the essays, but in the field itself, which is trying to come to terms with new approaches to SF criticism while not yet letting go of the assumptions behind the old approaches. Perhaps, as the interplay between the Lethem quote and Barr’s response to it above suggests, new alliances lead to new fissures in SF criticism, and these fissures lead straight back to the old ones.

FICTION REVIEW

**Punktown**
Michael Levy


The Ministry of Whimsy Press made news a couple of years ago when one of their books, Stepan Chapman’s *The Troika*, became the first small-press novel to win a major SF prize, the Philip K. Dick Award. Their original anthology, *Leviathan*, was also nominated for both a World Fantasy Award and a British Fantasy Award. I mention this because, on the basis of their track record (they’ve also published superb short fiction by Bruce Taylor, Chapman, and others), anything Jeff VanderMeer’s press puts out is likely to be worth looking at.

Jeffrey Thomas’s *Punktown* continues this tradition of excellence. The nine short stories published herein are all set in the dark and dirty city of Paxton, aka Punktown, an aging metropolis built upon the ruins of an even more ancient alien city on the planet Oasis. Although the majority of Punktown’s inhabitants are human, more or less, a variety of
exotic and often rather dangerous alien species lurk in the darker quarters of the city. Among Thomas's influences, other than noir fiction generally, are H.P. Lovecraft and, perhaps, Thomas Hardy. Although Thomas is a bit more traditional than Steve Aylett, Punktown would not be out of place on the same shelf as that writer's Slaughtermatic. In "The Reflections of Ghosts," a man creates works of art out of grotesquely deformed clones of his own genetic material. In "Wakizashi," a policeman must deal with an alien who, protected by diplomatic immunity, has gruesomely murdered several human beings as part of a religious rite. In "Immolation," Magnesium Jones, a member of a clone group grown exclusively for heavy industrial work and owned by the factory in which they labor, stages a revolt, only to find himself betrayed by a crooked union leader.

Thomas's imagination is both very disturbing and very powerful. Any reader who appreciates dark, urban fantasy at its very best will want to read this book. Additional stories in the Punktown saga can be found at the author's well-done Punktown City Limits Web site: <msnhomepages.talkcity.com/TimesSquare/necropolitan/index.html>.

FICTION REVIEW

Vanishing Acts
Philip Snyder


Theme anthologies are the yard sales of science fiction. More often than not, such collections are more trash than treasure, assembling fiction of dubious value about time-travelling vampires, left-handed elves, or alternate-world New Jerseys. On occasion, however, the goods on offer will be of genuine heirloom quality, as in the newest anthology from Ellen Datlow.

Vanishing Acts is an anthology built around the theme of endangered species—an anthology, basically, about extinction. The range of species covered in this enterprise, as noted by Datlow in her introduction, run the gamut from insects and buffalo and humans to aliens and plants and creatures that have never existed in our universe—and imaginary genetically engineered creatures that perhaps shouldn't.

The project is a mostly original anthology, with 15 stories and one poem (a sharp sestina about war, from Joe Haldeman). Four of the stories are reprints—three from Datlow's tenure as editor of Omni, plus a 1957 classic from Avram Davidson—with the rest written specifically for this collection. The range of tone and method are surprisingly varied. While many of the stories, as might be expected, are indignant or heartbreaking or just plain depressing, Datlow accurately points out that there are also healthy doses of exuberance, adventure, and even twinges of humor on display here. Most are straight SF, with a few shading to near fantasy, along with some nice horror or near-horror from Ian McDowell, David Schow, and others. (As the Horror Half of the Datlow/Windling anthologies, Datlow knows where to shop for stories with a dark twist and a bite.)

The gems of this anthology are "Listening to Brahms," a reprinted Nebula nominee from Suzy McKee Charnas, and Ted Chiang's original steampunk novella, "Seventy-two Letters." The Charnas story is a quietly devastating account of the final survivors of Earth's destruction, and of their uneasy relationships with the alien race which has rescued them; what Charnas makes of this premise is a finely crafted meditation on cultural assimilation, on loss, and on the healing power of music. Chiang's novella, meanwhile, blends contemporary hard science, discredited Victorian science, and an eerily convincing pseudoscience in a brilliantly achieved portrait of the inner workings of the scientific enterprise itself.

Not all of the stories are entirely successful. A few are one-trick ponies, relying on a Nifty Idea or a single plot twist for their (limited) effects. Some of the comic stories, unfortunately, are less funny than merely silly. But the book also serves up memorable reprints from Bruce McAllister ("The Girl Who Loved Animals") and Karen Joy Fowler ("Faded Roses"), along with sharp original work from Ian McDowell, Paul McAuley, and the underrated A.R. Morlan. There's much in Vanishing Acts that will be turning up on the award ballots, and most of the rest is well worth reading.

On the whole, however, this anthology is good but not great. Datlow's work as a reprint editor, as in her Year's Best Fantasy & Horror annuals, is superb; her work with originals, especially in less confining formats like her adult fairy tale series, is equally impressive. One wishes that Datlow would produce a non-theme, original anthology on a regular basis—another crying need in the field—along the lines of the Starlight series. Vanishing Acts is a tempting preview of how good such a series could be, if Datlow were not hampered by the Procrustean demands of the theme anthology.

Now that cyberspace is the home neighborhood for so many of us, it’s increasingly a challenge to produce truly effective cyberpunk. As recently as in such novels as *Trouble and Her Friends* (1994) and *Dreaming Metal* (1997), Melissa Scott has demonstrated that there was still plenty of life in those mean streets. But with her latest novel, *The Jazz*, even she has difficulty hiding some of the wear and tear on the cyberstuff.

*The Jazz* takes place in a day-after-tomorrow America where a teen-aged boy, Keyz, has hacked his way into a Hollywood studio and made off with a program, code-named Orpha-Toto, capable of predicting formulas for media blockbusters. The studio, headed by ruthless CEO Gardner Garretty, comes after Keyz — with its own private police force, no less — and Keyz takes refuge with Tin Lizzy. She’s a young woman (and former petty criminal) who does “back-tech” for Web infotainment, a heroine cut from the same cloth as Scott’s earlier character, Trouble. The ensuing pursuit provides a serviceable plot, and Scott’s storytelling is seldom less than compelling. Nor is *The Jazz* without its share of neat ideas. Some of these are fairly extensively worked out: the “covenanted communities” of this near future, for example, are independent townships with not only their own laws but their own lifestyles, so that “Americana,” for instance is a neighborhood of unstintingly Hallmark nostalgia, while a community called “Stormhafen” is a pseudo-Viking enclave whose citizens resembles nothing so much as a fantasy role-playing game that’s gotten out of hand. Another nice touch, though Scott never develops it, is her notion of Educational Maintenance Organizations. (These last, of course, are the academic equivalent of HMO’s; you just know there’s got to be a whole novel in that idea).

But too many of her extrapolations — like the “smokes,” which seem like little more than advanced laptops — are surprisingly unsurprising, and even the SFnal conceit at the heart of the book starts too seem a bit forced. The “jazz” of the title is ostensibly the practice of spreading convincing and entertaining lies on the Internet: misinformation as artform. Over the course of the novel, however, as Scott’s “jazz” begins to signify anything from metalinguistic performance to art to routine bullshit, it becomes simply too loose a concept to bear all the weight she puts on it. So it is not surprising, perhaps, when her characterization also fails to meet her usual high standard. While Tin Lizzy is still an effective character, if perhaps overfamiliar, Keyz is pretty much made of recycled fiberboard. And Garretty, the dastardly CEO, is villainous to the point of embarrassing caricature.

There is, in short, a tendency to floppiness and fuzziness in *The Jazz* which is becoming all too common, perhaps, across a broad range of cyberpunk-inflected SF. Thus nanotechnology, for instance, often seems uncomfortably akin to magic; thus virtual reality settings seem too reminiscent of on-line gaming scenarios; thus “meme” becomes simply high-tech shorthand for “popular idea,” and so forth. Not that these tropes can’t be done well — witness, for example, Kathleen Ann Goonan’s ambitious but well thought out take on nanotech — but it seems to be getting increasingly harder to do so. Which raises a question: what kind of literature can we expect to give us our best thinking about the very near future? Will it be, in fact, an SF novel at all? Will it be, instead, the “non-SF science fiction” of something like Neal Stephenson’s *Cryotechnicon*? Or might it be — thinking now about the Internet, in particular — something from the literary mainstream, like Richard Powers’ *Plowing the Dark*? It will be curious to see where the latest version of cyberpunk goes next, and to see whether Melissa Scott, returned to the top of her form, will be one of those who takes it there.


On 6 March 2000, Greg Egan’s *Teranesia* received Australia’s 1999 Aurealis Award for best novel. Egan promptly turned down the award (as reported in the *May 2000 Locus*). One wonders why, given that *Teranesia* is a substantial, complex, and quirky story with affecting emotional power.

Set initially in 2012 on the eponymous uncharted volcanic island north of Timor and west of New Guinea in the Banta Sea of the Indonesian archipelago, *Teranesia* contains a double focus: the haunted psyche of point-of-view character, Prabir Suresh, and a surprisingly ominous genetic puzzle. Prabir’s parents, Rajendra, a biologist, and Rahda, a geneticist, have come to Teranesia following a trail of astonishingly mutated butterflies. But before the Sureshs can determine the cause of the seemingly abrupt mutations, the raging Indonesian separatist civil war tragically forces nine-year-old Prabir to flee the island by boat with his infant sister, Madhusree, on the first of the three sea journey’s that provide the narrative’s structural symmetry.
Nearly twenty years later, while they are living in Toronto, Madhusree informs Prabir that she intends to return to Teranesia as an assistant on a university funded expedition investigating the growing number of dramatic mutations in the area. Unable to prevent her going and frightened for her safety, Prabir secretly follows and hooks up with freelance biologist Martha Grant who conveniently has a boat and needs a guide. Their sea journey back to Teranesia forces Prabir to confront his shattered past as well as the growing puzzle of accelerated mutation. To provide any further plot detail would be to give away the central mystery and resolution of the novel, but suffice it to say, the third sea journey closing the narrative involves Madhusree's rescue of Prabir and his coming to terms with his past and their present.

Teranesia entertains because of its double focus. Prabir is an interesting character. As the consummate Other: a nurturer multiply alienated by his sexual orientation, statelessness, ethnicity, rationalism, and the near-generational divide between him and the younger Madhusree, his quest for self-knowledge and self-acceptance is difficult and painful. He certainly is among the most dynamic and rounded protagonists of recent science fiction.

Furthermore, Egan's science firmly places him in the hard SF tradition, and Teranesia's central issue will lead (has already led?) to inevitable comparison with Greg Bear's Darwin's Radio. Happily, the two novels are distinctly different in focus and style. Teranesia does contain a fair amount of scientific information dumping, some of it not only informative, but also sensitively presented (e.g. the discussion between Prabir and his lover, Felix, concerning the evolutionary rationale for homosexuality on 93-96). But at other times, Egan's narrative assumes a distinctly patronizing, dismissive, and universally negative tone when depicting the humanities. Prabir's cousin Amita and her former partner Keith typify all that is foolish (for Egan) about the humanities. They are not characters, but poseurs and caricatures. Unfortunately, Egan confuses what he takes for satire with what appears in fact to be merely cranky elitism - for him, everything about the humanities is irrational and silly, including feminism, postcolonialism, art, music, and poetry. Egan's exaggerated distortion of the humanities is this powerful novel's one major flaw.

This caveat aside, Egan's interweaving of evolutionary and biological issues with Prabir's story makes Teranesia soar. Without my being too reductionist and also giving away the plot's resolution, Egan's narrative manages to skirt ultra-Darwinism while also dealing with issues as diverse as selfish gene theory, kin selection and altruism, speciation in isolated populations, the breakdown of traditional isolating mechanisms, and punctuating equilibria resulting from a totally unexpected direction. Teranesia proves that Egan can jam a wealth of fascinating speculation into a short novel while also creating, in Prabir Suresh, a fully realized, humane protagonist. What a writer; what a novel! Too bad Egan did not accept the 1999 Aurealis. Teranesia earned it.

1 That a blanket and all but self-evident argument can be made to the effect that much art in general—not all, but much—and certainly Jar of Fools in particular improve the quality of human life, and therefore, as they fall into the cycle of life lived and life reproduced might add a dollop of pleasure to human existence, which just might make human beings more desirous of reproducing (because there are works such as Jar of Fools out in the world)—an argument that actually contravenes the content of McCloud's definition, because Jar of Fools does promote reproduction by promoting human happiness and thus giving humans a reason to reproduce—is not to the point.

2 Suvin's definition as a definition accomplishes parts of its exclusionary job perfectly well. There probably are few or no texts that accomplish no estrangement and deal with nothing cognitive, either directly or by implication, that most readers wouldn't also feel were not science fiction. The problem is rather that it doesn't exclude anywhere near enough. As Shlovsky argued, when he purposed the notion of estrangement for literature in general, all metaphor works by estrangement. And as George Levine argued so brilliantly in Darwin and the Novelist, Patterns of Science in Victorian Fiction (Harvard, 1988) there is hardly a nineteenth-century English novel that isn't directly impacted by the scientific developments of that century. What is the point of a definition that, while it gives us a formal method for explaining why a 1956 True-Conessions article is not science fiction, nevertheless includes 80% of Victorian literature? As a description of much science fiction—and a description which happens to apply, but applies much less interesting, to a lot of other things as well—it would seem to hold much critical potential, a potential that, for more than a quarter of century, has been all but untapped.
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