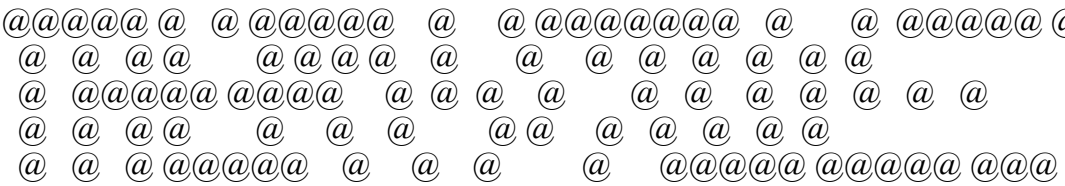

Mt. Holz Science Fiction Society
Club Notice - 09/29/95 -- Vol. 14, No. 13

MEETINGS UPCOMING:

Unless otherwise stated, all meetings are in Middletown 5T-415
Wednesdays at noon.

DATE	TOPIC
10/05/95	Book: BRAIN CHILD by George Turner (**THURSDAY**)
10/25/95	Book: BEYOND THIS HORIZON by Robert A. Heinlein
11/15/95	Book: MIDSHIPMAN'S HOPE by David Feintuch

Outside events:
The Science Fiction Association of Bergen County meets on the second Saturday of every month in Upper Saddle River; call 201-933-2724 for details. The New Jersey Science Fiction Society meets on the third Saturday of every month in Belleville; call 201-432-5965 for details.

MT Chair: Mark Leeper MT 3F-434 908-957-5619 m.r.leeper@att.com
HO Chair: John Jetzt MT 2E-530 908-957-5087 j.j.jetzt@att.com
HO Co-Librarian: Nick Sauer HO 4F-427 908-949-7076 n.j.sauer@att.com
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1. About our next book, BRAIN CHILD by George Turner, Dale Skran says:

ODD JOHN by Olaf Stapledon has always been one of my favorite science fiction novels. A haunting, downbeat young superman coming of age in the world of humans story, it was at once tender and heartless, completely free of the "happy ending" convention typical of the science fiction of its time. Now Turner has given us an "Odd John" for our time, updated by another 50 years of science.

It also addresses the nagging feeling that very soon we are going to meet/create John, and that very little may survive the encounter, least of all our illusions of moral superiority.

BRAIN CHILD is brilliantly told and organized, a murder mystery in the best British tradition, while crackling with ideas and a sense of disturbing insight. Since there are so many deft turns of the plot, I am reluctant to describe it in very much detail. The basic story posits that in 2002 the Australian government sponsors "Project IQ" which produces five groups of four youngsters. One group dies in the womb. Another dies en masse a few days after birth for no reason that anyone can ever discern. Of the three that survive, Group A possesses vast analytical ability but limited creativity. Group B has vast creativity but lesser analytical abilities. Group C is inhumanly intelligent and creative, as far above the common man as man is above a dog. One of their number, Conrad, the "Young Fella," is the amoral yet naive "Odd John" for our time. [-dls]

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2. I guess I have another piece on animal intelligence coming up. I don't know why I am so interested in the subject. Anyway, I have a tree outside my house and it has very pretty delicate leaves. They look like little doilies. And the reason they look this way is that there is a dedicated crew of beetles who are decorating the leaves. Now, I could spray the trees, but that way I would end up with all sorts of poisons in the ground water and perhaps a few three-eyed squirrels running around my yard. Besides, I would be on the outs with the "Save the Earth" generation who rail against people using pesticides at huge outdoor rallies where they trample over nature and leave pizza boxes and beer cans and bottles on the ground.

Anyway, my approach to handling bugs in my trees is to put a bird feeder in the tree and not fill it. Then I figure the birds will be so disappointed they will go after the beetles. My way seemed a

bit ineffective so I started filling the feeder. This provides the birds with the starch course and I am hoping some of them will stick around for a protein. I put up little posters that show a little food pyramid with beetles at the top. I cut it off of the back of a dollar bill and turn the eye into a beetle. Then I put on little slogans saying that protein is essential for healthy bones and teeth. Occasionally they come to the door and ask me what teeth are. How quickly they forget archaeopterix. You know, what they say about birdbrains is correct.

But what I want to know is, how does the seed go so fast? I mean, it is just minutes before the first bird shows up and very quickly there are lots of birds. How do they find out so fast? Do they put out the word on their equivalent of CB? "I was making my rounds of Sector 361 and I found a feeder in tree 17. It is full of seed; come at once." Well, of course that isn't how it happens, so I want to know what the mechanism is. How often are there birds

coming around checking out my trees? How does the word (if that is the right word to use) get around to other birds? [-mrl]

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3. PULPHOUSE #18 (Pulphouse, 1995, 64pp, US$4.95) (a magazine review by Evelyn C. Leeper):

I find myself inexorably drawn to reviewing magazines, in spite of trying to avoid it. In part, this may be because I find myself reading magazines that are not the ones most science fiction readers read.

My latest is PULPHOUSE, a magazine apparently so arcane that even the clerk at the Science Fiction Shop in New York hadn't heard of it and couldn't find it. PULPHOUSE started out as the first "hardcover magazine" and while that format didn't stay around very long, PULPHOUSE is still being published in an 8-1/2" by 11" format. The latest issue, number 18, is an "all-Jesus" issue, which makes it pretty close to an anthology in spirit.

[Given the topic, I suppose I should say that I am writing from a Reconstructionist Jewish perspective as interpreted by me. If it matters.]

There are eleven stories here, of varying quality.

The best story, in my opinion, is Matt Fried's "Forget Canaan." This is told from the point of view of Moses: a reincarnated Moses, a Moses reincarnated in Nazi Europe. Naturally Jesus figures into this (after all, this is an all-Jesus issue), but Fried takes a different tack than one might expect, and raises some interesting questions about the assumptions which are the underpinnings of our religions.

"The Jesus Construct" by Sonia Orin Lyris is perhaps the most science fictional, with a Jesus in cyberspace who may be a collective illusion of the users ... and then again, maybe not. Lyris handles the ideas well--and after all, what Jesus stories have going for them are the ideas.

"The First Stone" by W. M. Shockley appealed to me, but looked at objectively, reads more like a wish-fulfillment story, in which the plot is written solely to promote the idea that the author's agenda is "correct." Heinlein used to do this, of course, but on the whole it doesn't make for a good story.

"The Fourth Nail" by Pam Noles takes an idea from another genre and applies it here in a somewhat unusual fashion--interesting, but not entirely convincing.

"The Butterfly King" by Denise Tyler may seem at first related to another well-known Jesus story, but on closer consideration this turns out not to be entirely accurate. The characters are well thought out, and if the set-up is a bit too convenient and familiar, Tyler does carry it through without problem.

Brian Garwood's "Charnel House" is one of those "let's put an old character in a modern setting" sort of story: Jesus in a lower-class neighborhood in Detroit. It works if you like that sort of thing, I suppose. John H. Brazier's "My Last God Show" is about

showing gods and demons like pet dogs; if Brazier is not himself dyslexic, I assume he was inspired by someone who was. Gregory Frost's "Touring Jesusworld" is another story where the setting is all, and the ending falls a bit flat.

Cynthia Zender's "Son of God" and Dale Bailey's "Epiphany" are the shortest (under a thousand words each), and as with most very short stories depend on their "punch" endings for its strength. Unfortunately, the ending for Zender's was too predictable, and the story fell a bit flat. But Bailey's story takes a more conservative approach and is a modest success. Tony Daniel's "Press Return" is a little longer, but didn't seem to have much point.

As I noted, even the specialty shops may have problems providing you with this magazine. Luckily, you can put a check for US$4.95 in an envelope to Pulphouse Publishing, P. O. Box 1227, Eugene OR 97440. (I have no idea if they take credit cards, or what it would cost outside the United States. You can call +1-503-935-6322 and ask if you're interested.) [-ecl]

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4. THE TIME SHIPS by Stephen Baxter (Voyager, ISBN 0-00-648012-8, 1995, 630pp, L4.99) (a book review by Evelyn C. Leeper):

This is the first authorized sequel to H. G. Wells's TIME MACHINE, though there have been many unauthorized sequels. (See my Intersection convention report for a summary of Baxter's talk on these.)

The problem that British authors have is that if their books are published in Great Britain before they come out in the United States, they end up missing out on the Hugo nominations, since the voters are overwhelmingly North American. So listen up:

NOMINATE THIS BOOK.

(Actually, it used to be the kiss of death for me to recommend a book for a Hugo, but after I pushed for Michael Bishop's BRITTLE

INNINGS and James Morrow's TOWING JEHOVAH and both made the ballot, I figure that maybe the voters are coming to realize my wisdom.)

But back to THE TIME SHIPS. It begins where THE TIME MACHINE leaves off, right after the Time Traveller has told his story to his friends. They are skeptical, and he is feeling guilty about abandoning Weena to the fire and the Morlocks, so he packs a bag, hops into his time machine and heads back to 802,701 to rescue Weena, help the Eloi, and get proof of his travels.

But things don't go as planned.

I don't want to reveal too much. One of joys I had in reading this book was that, because it hadn't been released in the United States, I hadn't read much information about it. (I must have read enough in LOCUS to know I wanted to get it, but not much more than that.) But I can say that Baxter does a good job of writing in the style of Wells. After all, his story is still being told in the first person, by the Time Traveller, and so needs to retain the Victorian language that Wells used. Baxter does this, leavening it just a bit to avoid sounding obviously archaic. The result is something that readers familiar with Wells can "flow" into, but newer readers won't see as strange-sounding.

Baxter said at Intersection that there were some things Wells didn't do that he (Baxter) wanted to, and he does that here. Other speakers at Intersection--held this 100th anniversary of the original novel--point out that Wells ignored time paradoxes, and Baxter takes a stab at some of those, as well as introduced some ideas about time travel formulated since Wells's time. Yet he doesn't do this in a "pasted-on" fashion, and it works. The reader might even start to think that Baxter is trying to cover too much and too wide a range, and certainly there have been authors who attempted similar and failed, but Baxter ties it all together so well that in the end he cannot be faulted in this regard.

One minor complaint I had was the use of post-Wells historical figures (which at times *did* seem awkward). But Baxter's use was not, on the whole, gratuitous, and my objection may be just a side-effect of my seeing this done so often in alternate histories.

I have studiously avoided telling you more than the bare minimum of the plot so that you can discover the story as it unfolds. Go read this book.

(HarperPrism will be publishing this book in January 1996, which means it will probably be in the stores in December 1995. This is good news for United States fans, and also for Baxter, who may get the Hugo nomination he deserves.) [-ecl]

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5. UNSTRUNG HEROES (a film review by Mark R. Leeper):

> Capsule: Family tragedy gives a twelve-year-old the opportunity to choose between the rationality of his father and the weirdness of his two unbalanced uncles in a sentimental but muddled story. The first dramatic feature film directed by Diane Keaton will strike a responsive chord in some, but it actually is not a very good piece of story-telling. Rating: high 0 (-4 to +4)

It is a lesson we tend to see a lot in the media. Road Runner cartoons tell us that technology does not work. In STAR TREK we learn that being logical like Spock can be useful but, it is better to be emotional. Data teaches us that being human is the ultimate to which a machine can aspire. LITTLE MAN TATE, directed by Jodie Foster, showed us that child prodigies turn into twisted monsters who concoct experiments involving "lasers, sulphuric acid, and butterflies." Now another actress-turned-director, Diane Keaton, tells us a story of how in the face of family tragedy, two uncles, even ones with obvious mental problems, who are emotional are more comforting than a genius father who insists on being strictly rational.

In 1962 Steven Lidz (played by Nathan Watt) is the twelve-year-old product of a loving but strange family. His father, Sid (John Turturro), is an inventor and an eccentric genius constantly involving the children in fanciful creations that never seem to work out. The kids at school claim that Steven's father is an alien from another planet, an idea that Selma Lidz (Andie MacDowell), Steven's mother, does not completely discount. But Sid and Selma are so much in love that Selma overlooks the outright weirdness of her husband. She is not quite so willing to overlook the eccentricities of Sid's two very strange brothers, Danny (Michael Richards) and Arthur (Maury Chaykin). One is a super-paranoid; the other is just an adult with the mind of a child. In day-to-day family life Sid's cold, atheistic rationality is made

bearable for the children by Selma's warm, loving care and attention. But when Selma becomes sick and cannot provide that warmth, the stress of the household becomes too much for young Steven and he runs away to live with uncles Danny and Arthur. There he discovers his uncles were stranger than he ever realized, but also finds them lovable.

Just why the craziness of the uncles is so wonderful or why it transforms Steven is never explained. And that is an important weakness of the film. The anti-rationality of the film would be only a minor irritation, but for the film failing to make a case

for its side yet still smugly declaring victory.

The acting is really not bad, particularly in the performances of Turturro and Richards as brothers. And while both performances seem a little exaggerated, Keaton does manage to suggest common threads in the two brothers' manias. Curiously, the male roles are better drawn and acted than the one major female role. MacDowell's character is just a bit too wonderful in a mistaken attempt to make her sickness a little more tragic.

But the big mistake of the film is to make so clear that contact with the crazy uncles was terrific for young Steven without giving the viewer much reason to understand why it was so good. Without filling in that blank the film has no chance to resonate. The only conclusion the viewer can draw is that rationality is a cold dead end. And that is a theme we see all too often already. I give this one a high 0 on the -4 to +4 scale. [-mrl]

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6. Intersection 1995 (a convention report by Evelyn C. Leeper) (part 2 of probably 6 parts):

TERMINAL FORCE
Friday, 10:00

Since we had no panels we wanted to attend until 1 PM, we went to this free sneak preview of a new science fiction film starring Brigitte Nielsen, Richard Moll, and John H. Brennan; written by Nick Davis; and directed by William Mesa. It is therefore Nick Davis we have to thank (?) for such lines as, "[The crystal] is the soul of our culture; it is the antithesis of our ways." (After the film, Iain McCord in the row in front of us turned around and asked "What is antithesis?" My answer: "The wrong word to use in that sentence.") I haven't seen a movie this bad since ICE PIRATES and had it been in the SECC I would have walked out, but since it was a considerable taxi ride away I figured I might as well wait for Mark and Kate.

When we did arrive at the SECC, I left messages for a bunch of people I hoped to make contact with. The "Voodoo Message Board" was conveniently placed on the Concourse, but the board itself was "unpinnable"--it was what we call in the United States beaverboard (but which undoubtably has some other name everywhere else).

I did actually manage to meet one of the AT&T Science Fiction Club members from Dundee (Stephen Massie); there may have been others at the convention, but as day members, since they weren't on the

message board lists. We were supposed to get together with Carl Aveyard from Leeds on Monday, but that fell through.

I also talked to George "Lan" Laskowski a bit, and we kept running into him at various times throughout the convention.

Alternate Technological Histories
Friday, 13:00
Simon Bradshaw (m), Stephen Baxter,
Evelyn Leeper, Pat McMurray,
Harry Turtledove

"How might history have been affected by changes in the way technology developed, and how could alternate history have influenced technology?"

The more elaborate description given the panelists was:

"1. The way in which history might have been changed had technology developed differently, e.g., WW2 with better-developed radar or the Cold War without ICBMs to give two recent examples.

2. How technological history might have been affected in alternate historical paths, e.g., US technical progress had the South won the Civil War, or aerospace if WW2 had never happened."

[Many thanks to Mark for taking notes for this panel.]

Bradshaw began by asking the panelist about the first aspect: how small changes in technology have had a big impact on history. Turtledove cited the example of the invention of the stirrup, which had a remarkable effect on riding and control, and would have resulted in some battles coming out very differently if it had been used in Alexandrian times. (I am sure there is a frieze with a rider using a stirrup from a period before it was assumed to have been developed, but Mark thinks that what is theorized was that it didn't catch on at that time. This would partially answer the question of why someone didn't think of it before--they did, but maybe it was tried in an imperfect form and people decided it wasn't very useful.)

Baxter said in his next novel, ARES, will be base on a small change in technological history, the idea that the Apollo landings were followed by a Mars program. In our timeline, NASA did advocate such a program, but the times were wrong: we were involved in the Vietnam War, social programs were soaking up the government's money, and so on. Still, it was very close, and if Nixon had needed to go to Mars it could have been done, and wouldn't have cost much more than the shuttle. This was all very interesting, but it didn't actually address the question of what would be

different now.

Leeper mentioned technology in Asia, saying that many times it could have moved toward more progress, and had a big effect on

history. For example, China had a navy at one time, but burned it because the Emperor decided there was nothing outside of China worth going to. And Japan had an opportunity in the 17th Century to adopt Western technology but instead banned it and closed their doors to the West for two hundred years. If one considers how far they have advanced in the hundred years since they did adopt Western technology, where would they be if they had started two hundred years earlier?

McMurray said his education was in mathematics, not technology or history, so he tended to look for things that might have been observed earlier. He gave the example that dairy maids didn't get smallpox, and asked what might have happened if vaccination had been around earlier. I noted that in Turkey, old women had been "vaccinating" people against smallpox for centuries, but Jenner gets the credit for adopting what others had been doing. Turtledove noted that in Turkey they used actual smallpox and hoped for a mild case instead of a deadly one, while Jenner used cowpox, which was considerably safer. In any case, had vaccination started earlier, it would have made a great difference, at least in Europe. McMurray claims it could have been eradicated sooner, but I am skeptical of that--there was a lot more than just the knowledge of how to vaccinate against smallpox that allowed the disease to be eradicated throughout the world.

McMurray also said that the yoke could have been invented earlier. The Roman Empire, for example, didn't have the yoke, which was why you needed so many horses to pull just a small chariot. McMurray added that they seemed to have the concept in some ways, but never applied it. (Oddly enough, less than a week later, we saw what were described as terrets from a yoke in the National Museum in Cardiff, Wales, which were supposed to be from between 50 B.C.E. and 50 C.E.) Leeper added that the same was true of the wheel in the Americas, and said a guide had claimed that while it was all right for children to use wheels in toys, they were too similar to the sacred sun to be used for work. Turtledove said it was probably not because of any religious prohibitions, but because they had no suitable draft animal. (Afterwards I wondered if llamas would have worked--it seems to me I have seen them used to pull carts now.)

Turtledove said that movable type has had a profound effect on everyone, and was disovered, oddly enough, in China, which has a poor language for it. (Actually, I had heard it was Korea, which does have an alphabetic language.) Had it been developed sooner in the West, things would be very different. Of course, for many of these suggestions of discovering or developing a technology sooner,

one wonders if "very different" just means that we would be where we are sooner. This probably would have been an interesting direction to go off in. For example, if there had been movable type in the time of the Crusades, would the spread of the printed word have changed the course of them? If there had been better disease control in the 14th Century, would the rise of the middle class and the mechanization of tasks been delayed because there was no great "die-off" in Europe? (Of course, one must also ask if this mechanization wasn't necessary *before* disease control could be perfected enough to have the desired effect.) However, the panel didn't follow through on this train of thought.

Baxter said that when he began ANTI-ICE, he realized that an easy-to-handle antimatter would not have helped, because the Victorians would have no way to use it, so he had an anti-ice comet hit the moon (and Antarctica) instead. And trying to have the Victorians do space travel was difficult. They would have to have some way of making the ship airtight, and some way of recycling their air. And Bradshaw added that even with the plans, the jet engine could not be developed until materials for it had been made, but that radar could have been developed from World War I technology. Along the lines of this "single-point" technology, Turtledove said that the Germans knew about radar, but were not aware of implications, which is almost standard: look at the tank. Leeper said that was true and that basically they were fighting with the same tactics as previous wars, in spite of having such weapons as tanks which required different approaches.

Baxter said the main problem the Greeks had with using any technology they developed was that they did not have the scientific method, so they had no way to test a hypothesis, or even the concept of doing so. That is why they thought heavy objects fell faster than light ones, though admittedly the fact is that most of the light ones they observed (such as feathers) probably did appear to fall slower (due to air resistance). Still, the fact that any sort of labor was beneath the aristocracy would have limited the amount of testing they would be willing to do, so developments such as Hiero's Engine remained isolated curiosities. Baxter said it needed a social invention: the scientific method. Leeper said she thought this was more a scientific invention than a social one, but everyone agreed that it was needed. In any case, L. Sprague de Camp wrote about a time traveler trying to teach the scientific method to Aristotle in "Aristotle and the Gun"; needless to say, it did not work out as planned.

Baxter also suggested that going back to the Civil War and giving

one side the Sten gun would have interesting effects, since they would have some idea how to use it, but not how to make it. Turtledove naturally noted that in THE GUNS OF THE SOUTH he used AK-47s. He even had his researchers try loading them with black powder, with the results described in the book. Leeper said that

much of this was encapsulated in "Hawk Among the Sparrows" by Dean McLaughlin, a classic story in which a jet plane somehow gets thrown back in time to World War I, before jet fuel, before its heat-seeking missiles could find anything to seek, before there were any planes of a sort that its radar could detect, and when all the other planes could out-maneuver it. (Eventually it uses its sonic boom to shatter the other planes, however.)

Bradshaw asked how history might have been different without the catalyst of some wars. Wars provide a catalyst, he said, so what might things be like if there hadn't been a World War II? (This was drifting away from the technological aspects.)

Baxter said that one would need some basic changes in Germany to have no World War II, and Leeper agreed that you would have to come up with a scenario without Naziism. She said that without World War II, however, there would be many social changes from our time, or rather, there would not have been the social changes that World War II brought about: women working outside the home, changes in race relations, and so on. The GI Bill led to a lot more people going to college, which led to further changes. (For that matter, without World War II, it's not clear what if anything would have pulled the United States out of the Depression.) These are all very Americentric, of course.

Turtledove said that World War II was the first time there was government-directed scientific research, but Bradshaw said it existed in World War I when Germany had its supply of guano (used to make nitrates) cut off and needed to develop artificial nitrates. Later, someone in the audience pointed out that the British navy was paying people in the 19th Century to build chronometers, and Turtledove recalled that the tyrant Dionysius paid inventors to come up with catapults.

McMurray said that without World War II, there might have been a Cold War with Germany. I'm not sure--a Cold War requires some reason not to start a hot one, and without World War II, we wouldn't have had the atomic bomb.

Bradshaw returned to the idea of the way in which society looks on technology. In Greece there was a slave class to do all the work, but in Elizabethan times, there was a working class that could better its position through effort. Turtledove said that the major shift was the Industrial Revolution, since that was when someone could see change in his or her own lifetime, and different often looked better. This caused a change in attitudes toward artisans. Leeper noted that the Black Death brought a big cultural change, as an "underpopulated" Europe started using more efficient methods to do what had been done by brute strength before.

Baxter said that there is one type of change we are not familiar with, though it shows up in science fiction a lot, that of the crypt with the ruins of a previous civilization, or often that of bits of spaceships used by primitives.

Someone asked how difficult it would be for someone in the room to go back and change something (assuming a time machine, I suppose). Turtledove said, "Keep it simple," and I said the hardest part might be to avoid being burned as a witch through most of history. Bradshaw said that one could have the biggest impact by pointing out the wrong turnings. McMurray gave the example of a simple invention that would probably be quickly adopted: everyone in the room could invent movable type. Leeper suggested the concept of zero and place notation, but McMurray said this had been known for quite a while before its adoption, but was avoided because it made it easier for people to "fiddle the accounts."

Baxter felt that the Battle of San Jacinto could easily have been tipped. Someone in the audience suggested stopping the assassination of the Archduke Franz Ferdinand, but McMurray pointed out that Europe in 1914 was just itching for an excuse for World War I, and would have found something else. The audience member

said the technology might have been different with a delay, but Turtledove reiterated that war was inevitable. Leeper suggested that a war without so much chemical warfare might have resulted in more chemical warfare in World War II, unless the solution to World War I also precluded World War II.

An audience member accused us of talking as if technology inexorable, but claimed things would have changed if there had been no Einstein. Bradshaw responded that Einstein was ahead of his time, but his discoveries would have happened fairly soon anyway, because people had already observed too many anomalies in Newtonian physics.

Leeper observed that, for example, if Newtonian calculus hadn't caught on, Leibnitz's would have, and Leibnitz had a better notation (at least according to Mark Leeper).

Someone commented about what might have happened if Germany had developed the atomic bomb first. One has to postulate something that could lead to that, and that means either a much different way of doing the research, or of Germany not driving all their Jewish physicists out, and the latter change would probably have far more interesting causes, and results, than just the bomb.

Someone in the audience reiterated what the panelists had hinted at, that it is the technological change that people have a use for that gets adopted. Turtledove noted that movable type reached the Ottoman Empire and in the first hundred years, only a hundred books were printed, because the Ottoman Empire was not ready or willing

for large-scale information exchange McMurray said that relativity didn't really have much practical application either at first, so a few years' delay in its discovery would not make a lot of difference. Leeper observed that in the case of many technological inventions, you find six or seven people all working on the same thing. Edison, for example, stole a lot of inventions from other people, though Turtledove said Edison did invent sound recording on his own.

Baxter thought another interesting, if overlooked, invention that

could have been introduced at any time was double-entry bookkeeping: it was the powerhouse behind the Italian businessmen. Someone on the panel noted that L. Sprague de Camp had that invention introduced much earlier in his LEST DARKNESS FALL.

An audience member said he still thought that inventions coming late would be of interest. Along these lines, Bradshaw suggested that without the development of the rocket in World War II there would have been no development of nuclear weapons (with no effective way to deliver them), and no real space program, but someone said that rocket travel would have come eventually.

McMurray said that if canals had been developed later that would have delayed a great deal; one audience member said that one thing it would have delayed was the compulsory buying of land by the government.

There was a discussion of the Romans. An audience member said that if Archimedes had survived, things would have been different, and this was possible since his death was somewhat accidental--the Romans had specifically said he was to remain alive. McMurray claimed the Romans were not technologically advanced, but Turtledove said, "You would be surprised." Apparently there has been a Roman pump found with a tolerance in tenths of a millimeter. Leeper asked if Babbage didn't have parts problems, and McMurray said Babbage's problem was that he could not find materials of sufficient strength, and that his search for such materials had a great effect on British engineering. Someone in the audience asked what might have happened if Babbage had succeeded, to which Leeper replied, "Read THE DIFFERENCE ENGINE." Baxter said his first experience with calculating machines had was with those that had turn cranks, and Bradshaw noted that the first application was cryptography, not the sort of data manipulation postulated by Gibson and Sterling. Leeper noted that computers would have been very useful in ballistics, and Mark Leeper in the audience mentioned calculating trigonometric functions. Someone noted that the Manhattan Project used dozens of people performing sequential calculations to achieve results similar to computers. Leeper said another story along these lines was Sean McMullen's "Soul of the Machine," about a machine that used no electricity but instead had hundreds of people doing calculations and pulling on ropes and

levers.

Baxter spoke about getting all knowledge generating words at random. Someone compared this to Arthur C. Clarke's "Nine Billion Names of God" and Leeper suggested a parallel with Jorge Luis Borges's "Library of Babel."

Bradshaw asked if all ideas will be investigated sooner because so many people working on them. McMurray thought not, saying we still need to have people who have insights. Turtledove agreed, saying, "We will come up with surprises a good while longer." Leeper said that when things were primitive and basic it was clear which way to go, but now with more possibilities there will be more ways to go, so not all of them can be investigated.

Deus Ex Machina
Friday, 15:00
Brian Stableford

"A talk by Brian Stableford on how to achieve the perfect science fictional climax. If the archetype of all fiction is the sexual act, what types of climax are uniquely appropriate to hard science fiction stories?"

[In the discussion below, Stableford was talking primarily about hard science fiction, even when he referred to it without the qualifier. The thoughts expressed here are Stableford's even if not stated explicitly at each point; I have interpolated very few of my own comments.]

It was difficult to tell from the title and description whether this was a serious panel or a humorous one, and even after attending I can't be completely sure, but it did seem to take at least a reasonably straight approach to its subject.

The talk was based on comments by Robert E. Scholes in FABULATION AND METAFICTION in which he considers the climax of a story as an "orgastic act," complete with tension and resolution. (The fact that the tech crew was stroking the microphones to test them during this section of the talk did not go unnoticed by either Stableford or the audience.

Stableford said that his talk was not only a discussion of the two types of climax, but also a pun on "hard science fiction." The basic climaxes in genre fiction are expected (the boy and the girl get together at the end of a romance story, the good guy beats the bad guy in a shoot-out at the end of the western, the murderer is revealed at the end of a detective story, etc.). Twist endings require this expected ending to exist, else there's nothing to have a twist on.

(At this point, they got the microphone working, but Stableford said this meant that "we missed the foreplay.")

Stableford defined the two basic endings. There are normalizing endings, in which the situation is returned to that of the beginning of the story. An example of this would be a story in which some evil force enters a town but is eventually defeated, and everything returns to the way it was. There are wish-fulfillment endings (also called "eucatastrophes" by Tolkien), in which the situation of the hero is bettered. Examples of this would be stories in which the hero gets the girl, or wins the election, or acquires wealth, or gains revenge. In terms of the parallel of Scholes, sexual orgasm is essentially normalizing, but some are eucatastrophic.

But hard science fiction stories encounter awkward logical problems in achieving these types of climaxes. For one thing, there are no stereotypical science fiction endings except as they are also of other genres. That is because science fiction is about the socially transforming effects of science, and these are of a different nature than the problems in other genres. Normalizing endings assume that status quo is both desirable and securable, and assume that change is bad--both of these assumptions are directly contrary to the underlying philosophy of most hard science fiction. In fact, Stableford noted, a show such as THE X-FILES, with its repeated normalizing endings leads to paranoia rather than satisfaction. Accepting the inevitability of change was part of early science fiction, and this is still true of much of it today.

But conventional eucatastrophic endings have their own stereotypes (e.g., get rich, get revenge, get love). Though editors often favor these (John W. Campbell comes to mind), extrapolators often question whether our ideas of betterment are arbitrary. In fact, Stableford says, science fiction which refuses to question our existing values in eucatastrophic endings are cowardly. Hard science fiction demands eucatastrophic endings, but these endings cannot satisfy the reader if they cling to contemporary accepted values.

The history of eucatastrophic endings in science fiction goes back

a long way. Edgar Rice Burroughs constructed "daydream fantasies" with such endings. Much early science fiction in the pulps was dedicated to the "myth of technological development as progress," and the technophilic Campbell certainly promoted this ideal. The two key figures in the analysis of plot in hard science fiction in the 1940s were Robert A. Heinlein and L. Ron Hubbard. Heinlein said that he believed there were only two basic plots: boy meets girl, and the little tailor. Then Hubbard pointed out a third: the man who learns better.

The latter results in a climax of "climactic enlightenment," in which the hero learns to place his life in the context of what science had revealed. And hard science fiction since 1939 has been a quest for new and more compelling eucatastrophic endings.

In hard science fiction, Stableford said, there are two types of eucatastrophic endings. One is what he termed an existential breakthrough: PSI, acquisition of new mental powers, etc. He summarized these as, "The mentally blessed but conscientiously meek to inherit the earth." The other is the "cosmic breakout," involving rockets et al. Both of these usually start in a claustrophobically narrowed society so as to emphasize the breakthrough. (Cyberpunk is just a variation on the cosmic, or extravagant, breakout.)

The cosmic breakout is closely linked to sexual act, and Stableford attributes this to the male domination of hard science fiction. The eucatastrophe of the cosmic breakout is, as he describes it, essentially thrusting and penetrative.

Existential breakthrough stories also had sexual implications, but they avoid the masculinity of the cosmic breakout and are the other half of the masculine/feminine dichotomy.

Scholes thinks much popular fiction is as coarse as "slam-bam-thank-you-mam" and he notes how often writing is compared to prostitution. (Scholes had an even lower opinion of science fiction, and once said to Kurt Vonnegut, "Among the forms of

popular fiction, science fiction was the lowest of the low.") But Scholes goes on to say that "the act of fiction is a reciprocal relationship--it takes two." His description clearly sees the writer as male, and the reader as female, even though he refers to both of them as "he."

Stableford feels that this low regard may be in some sense justified by the failure of most science fiction to follow the standards of characterization, mood, and so on that are applied to mainstream fiction. For example, characterization requires the author to fit a character to an environment, but in science fiction the environment isn't even there yet. Other standard techniques are equally difficult to apply to science fiction. The result is that science fiction foreplay is significantly different from other types. Other works construct realistic worlds with acts of *normalization*, while science fiction requires acts of *differentiation*. It is not the goal of the science fiction author to paint our world accurately, but to paint a world different from ours and emphasize the differences. Another difficulty is that hard science fiction is usually determined to extrapolate hard scientific principles, and because of this, the world described is more tightly bound that most fictional worlds. Indeed, most fictional worlds are allowed more leeway than the real

one (we know Rhett Butler did not exist, but we allow him anyway).

According to Stableford, hard science fiction is judged on its potency, its ability to maintain its hardness, and its ability to penetrate the world, thereby reinforcing its masculine nature.

Sexual and narrative climaxes need no further justification other than their pleasure. But just as sexual climaxes serve a function in the reproduction of the species, so narrative climax is used to reproduce society and its mores. Readers want good to be rewarded. If this does not happen, this produces the feeling that is labeled as "tragedy." The supposed improbability of the happy ending is artificial in the fictional context, that is, no matter how unlikely the success of the hero, we know that he will triumph. When the starship Enterprise is attacked by Romulans on the television show, we know that it will defeat them, no matter how

large the odds against it.

Which brings us to the deus ex machina. Religion and magical fantasy are full of dei ex machina, i.e., completely arbitrary happy endings of all the types discussed above. The harder the science fiction, the less room one would expect for dei ex machina, but this isn't what we see, because people (such as Campbell) say the technophilic moral order ought to be maintained at all cost. So hardness is confined to the early stages of the story (or foreplay, as Stableford said). As the stories progress, a metaphoric "divine wind" bursts forth to set everything right.

In Greek drama, however, it is the god-like power itself which matters; in hard science fiction, it is the source of the power that matters--technology. It is said that hard science fiction can insist that normality and moral order are transient, and that this end justifies the means (i.e., unrealistic climaxes that show this). The opposing view to this is that it's all essentially empty, and all we're getting are "miracles in technological disguise."

Stableford said he wants to discover and disclose a third type of climax. "L. Ron Hubbard was right--and wrong," he said. The man who learned better exists and is the best of the three plots, but Heinlein and Hubbard both misinterpreted this. Both men wrote and formulated their lives on this pattern. But Stableford noted, "We cannot know today what we will discover for the first time tomorrow." So we can't make claims about the next great breakthrough without making fools of ourselves. The man who learned better works when we set these tales in the past, but not as well in tales set in the future.

Stableford's answer is that we need to tell tales of men who never lose sight of the desirability of learning better, even if their successes are modest. These, he feels, are more satisfactory

because this is how growth really proceeds. Progress is through the collective and collaborative efforts of many people, not through greedy individuals and supermen. Stableford said there are those who advocate avoiding the climax altogether (just as there

are those who advocate the same for the sexual act), but he finds this too extreme. We must, however, be prepared to forsake the dramatics of the explosive climax.

Stableford insisted that we must "look with suspicion upon all the things we are bound to take for granted." In hard science fiction, eucatastrophic endings must be ironic and skeptical. "Satire is to be preferred to sermonizing." And in this leads to a parallel with what could be described as unorthodox and non-reproductive sex, in that its purpose is specifically not the reproduction of society as it is.

[to be continued] [-ecl]

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Nothing so comforts the military mind as the maxim of a great but dead general.
-- Barbara Tuchman