

2002 World Science Fiction Convention Non-Observing Report
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I have been a science fiction fan longer than an amateur astronomer, and with equal enthusiasm. Though practitioners of these hobbies often share a basic interest in space exploration and space science, the proportion of amateur astronomers among science-fiction fans doesn't seem bigger than in the public at large, so I usually keep the two activities separated. Yet at this year's World Science Fiction Convention, held in San Jose, California over an extended Labor Day weekend, four of the five panels in which I participated had enormous astronomical content, and one was specifically about amateur astronomy. So perhaps this "crossover" report will be appropriate.

Although the closest thing to astronomical equipment present was a Honda Del Sol decked out and detailed to look like a Y-Wing fighter from "Star Wars", cannon and all, I actually did do a little, er, observing at the con: With a total attendance of over 7000 enthusiastic science fiction fans, there were lots of beautiful women present, and there must have been some handsome men, too. I was paying close attention to the first of these moieties, but I know there must have been some of the latter because I couldn't get to first base with any of the former. But I had fun anyway. And you all thought I learned my observing skills watching galaxies.

The first panel I helped with was about the exploration of the solar system. David Morrison, NASA head of astrobiology, was on it. He had been asked to be moderator, but learned what science-fiction audiences are like beforehand, and dodged fast, so I ended up doing it. (I have been moderating panels at cons for decades; I am loud, shameless, and impatient, which works. They do ask me back.) We had a lengthy discussion of the prospects for present or past life elsewhere in the solar system -- Morrison wanted to look at Mars, Europa, and perhaps Titan, in that order. I didn't hear a great deal I hadn't previously heard about the prospects for life on these worlds, but Morrison did make one interesting comment. He said that in the event that robotic exploration turned up no sign of present or past life on or near the Martian surface, then perhaps a human presence would be necessary, to work drilling equipment complex and powerful enough to look for extant or fossil Martian life deep underground. He said he thought that that might end up being the first and principle reason to require humans on the Red Planet -- this from a person who came up in the tradition of remote small-vehicle exploration.

We also talked about another possible reason to explore the solar system; namely, the search for near-Earth asteroids, like August's 2002 NY 40. Several panelists were jealous that I had been in a place clear

enough to have a good view of this little demon as it whizzed by. Morrison thought it a good thing to search for these, and pointed out that after the search had been going on for a while, you would essentially have two kinds of warning of a serious impactor -- either decades or seconds, the latter in the case of something you had missed, coming at you from the general direction of the Sun. Thus if there were any time to do anything about it, there would be plenty of time. Morrison did not think it a priority to search for city-buster size impactors, like the Tunguska object that whacked down in Siberia in 1908, because there are lots of more probable city-busting threats -- such as nuclear war, conflagration, earthquake, or the southern part of Hawaii sliding into the sea (producing 200-meter tidal waves on the California coast if it did, and it's lava on loosely compacted debris, so it might) -- that we might prefer to spend our money on first.

Cons have large dealer rooms full of weird and interesting stuff. Those of you who like science fiction and fantasy books could have found a near-endless supply. There was fantasy jewelry, clothing -- piles and piles of esoteric t-shirts -- astronomical art, and lots of gadgets. From a vendor who specialized in lucite and brushed aluminum phaser-like gadgets, with noisemakers and flashing lights, I bought a variant device called an "annoyotron". It seems to work very well, and I look forward to opportunities to demonstrate it.

Panel no. 2 was -- ta-da -- on how to do amateur astronomy. I moderated this one, too, and saw to it that everybody present learned what a Dobson was, that binoculars were good beginner instruments, and that both the major astronomy magazines have web sites for amateur astronomy with high fan-out, for finding clubs and vendors and stuff like that. We discussed the prospects of building different portions of your own telescope, what it took to do imaging well (time and money), how to learn the constellations (H. A. Rey or perhaps a planisphere), and what kinds of things could a beginner with a small telescope hope to see in the night-lit sky of suburbia. There were perhaps 100 people in the room, and a show of hands indicated that most of them either were somewhat active as amateur astronomers or wanted to become amateur astronomers. I never did think to ask why the rest of them were there at all, maybe they just needed a place to sit down. Amateur astronomy has had an occasional presence at science-fiction conventions -- I have often set up a telescope at a con, and there have been occasional other panels, or presences from local astronomy clubs, but I thought this particular panel went particularly well.

One of the fun things about cons is meeting interesting people. A co-panelist on one occasion was Bridget Landry, whose job at JPL is uplinking commands to deep-space exploration probes. She is in some sense the closest thing to James T. Kirk or Jean-Luc Picard that Terra

has yet produced. Speaking of whom, Patrick Stewart spoke one evening, though I did not get to see or meet him. Another interesting encounter was with a young woman who, in her mid teens, had gotten fed up with the poor quality of her school's shonors program, taken a G. E. D. test, and skipped high school. I wish I had thought of that one.

My third panel assignment was to one about why science fiction set underwater is usually so unrealistic. The only connection here with amateur astronomy has to do with being all wet. Thus I shall merely state that I found an opportunity to describe how the California gray whale skeleton in Monterey Bay Aquarium got flensed and cleaned up for presentation, and that I had the good manners not to do so until everybody's lunch was well settled.

One sometimes meets interesting characters of the non-human variety. One of my friends had brought a large iguana, Zaphod, as a traveling companion. I spent part of an evening helping her find a party that was serving kinds of fruit that the iguana liked to eat. ("No, Jay, he only likes cantaloupe!") Zaphod was curious and social, more cat-like than anything else familiar. He liked being praised and petted, exhibited great cleverness and determination at trying to sneak off and explore under the couch, and rewarded human friends with occasional kisses -- licks from a long, soft, and very gentle tongue. His owner said that he had learned to vocalize in ways that mimiced a few words of human speech.

Panel four was a near-disaster. I wasn't moderator -- it wasn't my fault -- but I was about ready to leave and hide, only the audience was between me and the door. The topic was the Hubble Space Telescope, and nobody brought any slides! Forty lashes with an out-of-figure two-meter primary for the moderator, who shall remain nameless. Actually, it turned into a rather good panel, I think; collectively, the panelists knew enough about the science and technology of the Hubble to talk intelligently about it for an hour and a quarter, and answer lots of questions. I think most attendees went away having learned more than if they had spent the same time gawking at pretty pictures. Then again, I am not an imager.

Lots of people were interested in possible replacements or follow-ons for HST. I knew from docent experience at Lick Observatory that the Earth-based adaptive optics people are hot on the heels of the Hubble's high-resolution capabilities, at least for longer wavelengths and at sites that have pretty good seeing to begin with, and thus started a discussion going about how to approach the issue of the best way to spend a hypothetical new large sum of money for astronomy in space. I also knew enough about the politics of NASA and NSF mission selection, from my Apollo-Soyuz days, to tell how it might work in the,

er, real world. Something about "lawyers, guns, and money".

I not only met new friends but touched base with old ones. I have kept touch with a woman friend whom I knew in science fiction circles thirty years ago, even though she hadn't been to a convention since the 1970s. She came to this one, with her current significant other. We spent much time walking up to people she had known way back when, watching the double-takes as they recognized her, and catching up on old times. Her S. O. shows serious signs of becoming a serious fan as well, -- maybe it's catching -- and also wants to buy a telescope.

Last came a panel on serious world-building. Gliese 876 is an M4 dwarf in Aquarius, containing about as great a proportion of non-hydrogen-and-helium as the Sun, with two known massive planets, at distances from the primary where the energy received per unit area brackets conditions on Mars. Thus in principle these planets might have moons suitable for life as we know it. What would such worlds be like, and what kinds of new story opportunities might they offer for science-fiction authors?

The superstar on this panel was Hal Clement, a grandmaster of hard-science-based science fiction, whose novels like "Cycle of Fire", "Mission of Gravity", "Star Light", and "Close to Critical" have presented imaginative, intriguing worlds built on very solid astronomy and physics. The panel included a couple Ph.D. astrophysicists to round it out, and was moderated by an old hand in aerospace. We had a good time -- everyone agreed that interesting moons were possible here. Clement was fun enough to listen to that I actually mostly kept my mouth shut. I did wonder just how much more wizardly the spectrograph folks would have to get before harmonic analysis of the radial-velocity shifts that found the planets, produced interesting upper bounds on the masses of any such hypothetical moons.

I did lots of other interesting things at cons -- the parties at the Fairmont were particularly fun, but I shall spare you. Besides, I don't quite remember all of them...