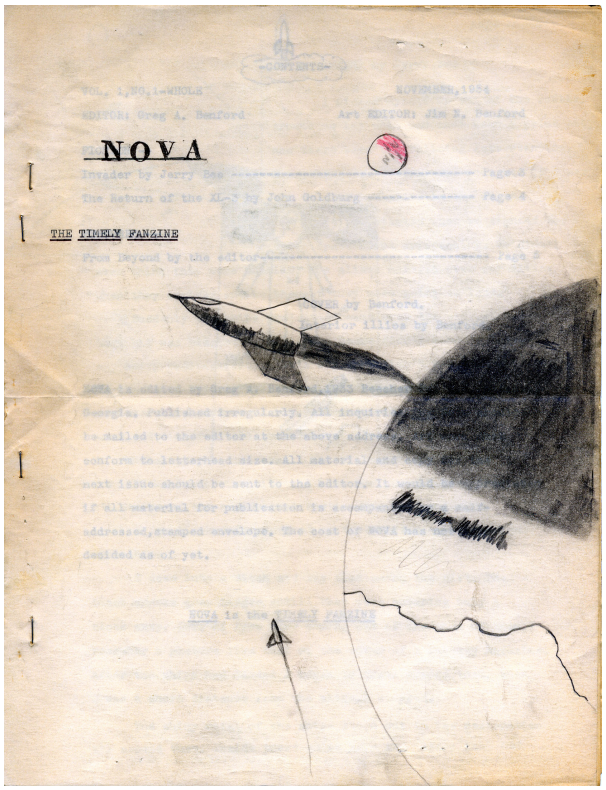
# Motley #17

**Jim Benford** **February 2022, FAPA # 338**

**Holidays:** We had a wonderful time in DC with Dominic's family during the holiday week. The Four Seasons hotel was perfectly located and the highest quality hotel I've been in since the Lake Palace at the center of the lake of Udaipur in India. Flying back to California, brother Greg and I went to have lunch with Robert Lichtman, our keeper-of-the-books, at his house. Here is a picture of him:

Robert Lichtman, Superfan




Robert showed us our *Nova,* published in November 1954 when we were 13. I have no memory of this at all. Yet it's evidently our fanzine! Here's the cover which clearly I drew:

We did it while living in Atlanta. I remember that we'd play in the woods behind our house in the remains of the entrenchments from the Battle of Atlanta in 1864. That was just 90 years past then. Our Atlanta days are almost 70 years ago now.Then we moved to Germany, where we did the first issue of *Void* a few months later, May 1955. (I wonder how many copies of *Void* #1 are in existence?) Robert has all the *Voids*! I dropped out of doing *Void* about the tine I went to college, ~ 1959. I was focusing on getting going toward the Physics PhD even then. I really wanted to find out how the universe worked, so dropped out till going to CA in 1963. From then on I did mostly a social fandom, of which there was a lot in California then.

## Mailing Comments

Bob Silverberg/Snikersnee Bob, you speculated, in commenting on Greg's *Berlin Project*, that the US held off bombing Tokyo and bombed other cities as well as the atomic bombing of Hiroshima & Nagasaki because it wanted to preserve Tokyo because the US "fearing that destroying the capital city would motivate the Japanese to furious resistance rather than driving them to immediate surrender, which is what the atomic bombs actually achieved" so that Emperor Hirohito would be able to surrender later. That's exactly wrong! In fact Tokyo was bombed repeatedly and intensively before Hiroshima.. For example, the single deadliest air raid of World War II was Operation Meetinghouse firebombing of Tokyo on the night of 9 March 1945. The Tokyo firestorm was created by a raid of 279 B 29 bombers dropping 1,665 tons on Tokyo. A *quarter* of Tokyo buildings were destroyed, covering ~16 mi.² and ~100,000 people were killed. In fact, bombing of Tokyo was continuous: on 20 July 1945: 1 B-29 dropped a Pumpkin bomb (bomb with same ballistics as the Fat Man nuclear bomb) through overcast. It was aimed at, but missed, the Imperial Palace, so we were not waiting for Emperor Hirohito to surrender later. Approximately 3/4 of Tokyo was destroyed by bombing.When we arrived in Tokyo in 1949 I was surprised to see so much agriculture in the city. Those were farms created in residential districts which had been entirely burned during the war. Moreover, I can't imagine that we would not use nuclear weapons against Germany when in 1945 people were dying at the rate of 1 million a month!

And you're exactly wrong about the Dresden attack, which was not "left to the British" as you say. It was to have begun with an American USAAF bombing on 13 February 1945 but bad weather over Europe prevented any USAAF operations, and it was left to RAF Bomber Command to carry out the first raid the following night. The British attack was followed hours later by American bombing. (The standard policy was for the British to bomb at night and Americans in the day.)

Roger Wells/Voice of the Habu You ask how what impact the use of centrifugal separation of uranium rather than gaseous diffusion would have on both the cost and the time for the development of the nuclear weapon. I asked Greg and he said that it would've saved $100 million 1940 dollars which was 10% of the Manhattan Project budget. $1.845 billion, (22 billion in todays dollars.) and equivalent to less than nine days of wartime spending. Of greater consequence, it would it would cut a year of development of the nuclear weapon. The latter is the most significant, as in the summer of 1944 the allies were marching across France and the destruction of Berlin could have led to cease-fire which would've altered the end of the war. The Germans would turn to all their efforts to fighting the Soviets and that would've probably saved Eastern Europe from the

Communists. That's what Greg's *Berlin Project* novel is about. To quote Edward Teller's autobiography: "If Dr. Cohen were right about the centrifuge, atomic bombs of the simple gun design might have become available in the summer of 1944 and, in that case, would surely have been used against the Nazis. Atomic bombs in 1944 might have meant that millions of Jews would not have died, and that Eastern Europe would have been spared more than four decades of Soviet domination." And all of that might've happened if the centrifuge program had been continued which would likely have led to the magnetic ball bearing quickly. That solved the centrifuge lifetime & maintenance problem. / I completely agree about the Army versus Air Force ranks. I remember my father, who was an Army Colonel, always found it confusing to deal with Air Force people because he'd find a Colonel in the Air Force who's 30 years old while Dad was 50!

And now for something completely different:

## Imagining Pluto

Gregory Benford

Pluto may be small, but it glimmers with enticing unknowns.

This we do know—it's the only planet found by an American, Clyde Tombaugh, who only received a high school education but had a knack for telescopes. He got lucky when he looked in a distant, dark sky for new wonders and found a small speck in 1930. Pluto is fantastically cold, at 43 degrees above absolute zero. For much of its orbit, the entire atmosphere freezes out. But we are drawn to Pluto for its mystery.

For the 85 years, Pluto has belonged to the science fiction writers, who imagined what wonders it might hold. The New Horizons flyby probe has shown that some of their imaginings hold up!

In his first novel, *World of Ptavvs*, Larry Niven depicted an astronaut landing in the Plutonian atmosphere, his vessel's hot exhaust releasing the frozen methane and oxygen and causing the entire planet to burst into flames. In a later story, Niven imagined an even odder fate. A stranded astronaut freezes, only to find that his nervous system has become superconducting and that he can still think, frozen solid. He watches the stars, but sunrise heats him and shuts down his mind, until night wakes it again. Only on Pluto could this happen. Another expedition will come. What can he do? The story's title gives the answer: "Wait It Out."

In 1984, in Kim Stanley Robinson's novel Icehinge, explorers find a circle of ice monoliths much like Stonehenge, built by … whom? A mystery.

Steven Baxter's 2001 story "Goose Summer" has Pluto harboring life like snowflakes or goosedown, which reproduces only when Pluto's highly eccentric orbit brings it near the warmth of the sun. (Its v odd orbit once led to suggestions that maybe it's an escaped Neptunian moon, which led to other stories, too.)

My own 2006 novel, *The Sunborn*, has small, smart creatures thriving along the shore of Pluto's supposed nitrogen sea. These life forms prove to be an experiment conducted by magnetic entities living in the far reaches beyond—creatures four billion years old.

Other attempts to imagine exotic lifeforms on such a dim freezer of a planet are appearing now, as New Horizons nears the shrouded world. So it goes.

Pluto has a big moon, Charon. The two are locked in an eternal waltz, so that each always faces the other. (Our moon does this, too, but our unlocked Earth retains its rotation.) Baxter's story also envisioned life sending strands like cobwebs from Charon to seed the surface of Pluto. In 2003 Niven wrote a story with Brenda Cooper building on this idea. They describe a living sky cable of vines connecting the worlds, so that life can use both.

Pluto is the last planet we have see up close for the first time—at least until we can send starships to other suns. When New Horizons' flew past Pluto, there were some confirmations of our many theoretical models. Far more important, there were surprises.

What we learned will apply not just to Pluto and our own solar system. Soon we'll have many more to deal with. The Kepler spacecraft and other telescopes have found thousands of solar systems around distant stars. To puzzle out how they form, understanding our own is essential. Only by such comparisons can we learn whether life is widespread in our galaxy.

The data from New Horizons has become the source of intriguing new speculations by science fiction writers.

## "*alt.fans*", 25 years later:

*Greg Benford's essay about online discourse and SF Fandom largely holds up*

Rick Henderson

In its January 1996 print edition, *Reason* magazine published "alt.fans", an essay from physicist and sci-fi author Gregory Benford about the emergence of the internet in the public consciousness as "the current hot metaphor for fast change, broader horizons, and info-deluge."

At the time, I was *Reason's* Washington editor, and my friend (and boss at the time) Virginia Postrel reminded me of the article during a recent phone chat. After re-reading the piece, a lot of Benford's predictions hold up. Some don't, though he foreshadowed the possibilities, including the prospect that widespread use of the internet as a publishing platform could lead to toxic discourse.

Benford's prognosis also suggests how we (the sometimes excessively online) might clean up the sewage, at least in our own digital backyards.

Benford said that the internet's gushing enthusiasts (for instance, John Perry Barlow: "the most transforming technological event since the capture of fire", Louis Rossetto:"the Digital Revolution is whipping through our lives like a Bengali typhoon — while the mainstream media is still groping for the snooze button") were getting ahead of themselves. 6

Considering that time's tech, and its pace of development, it made sense. Web browsing was clunky … at best. Marc Andreessen's Netscape Navigator debuted in October 1994. Internet Explorer followed in August 1995. By the next year, Navigator controlled 86% of the browsing market. Then Microsoft bundled IE with its operating system, provided IE for the Mac OS, crushing Netscape … at first. Netscape open-sourced its code, creating Mozilla, which led in 2002 to Firefox. Then Apple developed Safari, etc., etc., etc.

All this took place before the first smartphones were developed.

From Benford's late-1995 perspective, digital nirvana seemed revolutionary — unless the 'net had some historic analogy'. Maybe it did, he said.

Around 1930, a small new phenomenon arose in Depression-ridden America, spawned out of the letter columns in science fiction magazines: fandom. Though today the term means any gathering of enthusiasts, fandom evolved in the science fiction community. Strikingly, it anticipated much of Net culture.

He then drew parallels between the early phases of ***fandom*** (enthusiasts swapping letters through U.S. mail) and the internet (Al Gore's, er, the Department of Defense's ARPANet was launched at a handful of national laboratories and then spread to universities before going commercial).

Chain letters became fanzines. (Benford and his twin brother Jim founded *Void*, considered one of sci-fi's first literary zines, in 1955.) In the *Reason* piece, Greg notes you could find the keyboard version of an emoticon- :) :( and ;) -in '50s zines.

In the internet's infancy, emails spawned listservs and electronic bulletin boards.

Zines, especially the amateurish ones, also had their flamers. Benford anticipated this tendency worsening on the web as it became more ubiquitous. “Egalitarian forums can have notoriously low signal-to-noise ratios. In the electronic agora, a mob often drowns out Socrates.”

Looking at the article with 2021 hindsight, it’s remarkable how much Benford got right. Then again, he has an uncanny ability to connect dots and make stunning predictions.

A further note: Two years earlier for *Reason*, Benford wrote “The Designer Plague,” a thought experiment in which a malevolent gang — in this instance, environmental radicals seeking to depopulate Earth — created an unstoppable virus in a lab meant to wipe out millions.

“An airborne form of, say, a super-influenza. The Flu from Hell, carried on a cough, with a several-week incubation period, so the plague path will be hard to follow.”

It would be spread by infecting animals — turkeys, pigs, fish, chickens, he hinted.

How could you design an unstoppable plague? *By modifying RNA*. Sound familar?

**Cloudy crystal ball**

Benford’s crystal ball missed a couple of online developments, though: the handheld connected portable device anyone could own; and ubiquitous free social media outlets.

Gene Roddenberry’s clever team of writers envisioned a tethered version of Siri or Alexa a decade earlier:

Smartphones/tablets and social media platforms put the knowledge of millennia in the hands of billions. We often don’t share this knowledge wisely.

Benford thought online editors (aka “content curators”) would arise as access to the internet expanded. Much as zines for a general audience-the “genzine”-developed as fandom matured.

A Net genzine would probably begin as a "Best Of" feature, with pieces gleaned worldwide and labeled by interest-area. The better ones will go pro, requiring a fee to log onto the edited database. Authors will get paid. To raise quality, editors will start to demand revisions of raw Net material, using the carrot of payment. Genzines will become labyrinthian magazines.

Indeed, much of this happened. Periodicals have migrated from dead-tree to online. Web-only outlets — in the public-affairs sphere, Slate, Axios, Vox, FiveThirtyEight, Breitbart,

Daily Caller, etc.* Subscription-only online publications -The Dispatch, The Bulwark, Weekly Dish, Sinocism, Letters from an American, and more.

Even so, the tone of uncurated online discourse is often toxic. Moral grandstanding tries to browbeat rather than persuade. Some of the loudest complaints about online incivility come from fellow grandstanders. They seek to cancel speech mainly from the speakers they disagree with.

**Raging into the void**

The good news about toxic discourse is that most of us aren't extremely online. The most recent Pew Research Center polling about U.S. social media use, from April, shows Facebook and YouTube claim the most users who visit several times daily, 70 million and 60 million, respectively. Both platforms offer much more than political commentary. Roughly 14 million U.S. adults -6.9% of the population -say they visit Twitter, usually considered the most poisonous outlet for social comment, several times a day.

Yes, messages conveyed on these platforms are amplified offline. But the people making the most noise are greatly outnumbered by those who either don't care or never visit the sites at all.

Networks spread encouraging news as cheaply as they distribute nonsense and garbage. Greg Benford noted that SF fanzines figured out how to weed out much of their toxicity. Social media users can do the same, one person at a time, by tuning out if necessary, or by refusing to give clicks and shares to those who propagate the poison.

As Benford wrote to close "alt.fans,"*Wired*'s Kevin Kelly thinks that the Net will become the dominant force in our culture. But I rather doubt it. But if Kelly is right or even half-right, an eye cast to our past is even more relevant now."