

## Thrillin' at the MacMillan #8: SPACE GENERATION

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### SPACE GENERATION

[by] Spider Robinson

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The first thing “space generation” makes me think of is the quantum ramjet, a hypothetical star drive I chose as the motive force for the starship *Charles Sheffield* in *VARIABLE STAR*, my new collaboration with Robert A. Heinlein. It would make use of quantum fluctuations in the energy of the cosmic vacuum to propel a ship up to relativistic speeds quickly, without burning any fuel.<sup>1</sup> No such engine has been built yet—but the engineer who proposed it, David Froning, mentioned parenthetically that if a quantum ramjet were ever built, it might very well *create new universes*, every second it was in operation, as a side effect.<sup>2</sup> It's kind of hard to top that for space generation.

Thinking about the quantum ramjet gets me thinking about a whole other kind of space generation, though, and it's that one I think I'll focus on in this, my final essay here: the *spectrum* of generations of the people who showed up at the Space Centre's Auditorium last Saturday evening, May 26, to hear me and roboticist Guy Immega, engineer Ray Maxwell, physicist Doug Beder and astronomer Jaymie Matthews—my science advisors for *VARIABLE STAR*—explain the nuts and bolts of starship design, planet construction and star demolition, and discuss Robert Heinlein's dream of mankind spreading out through the stars, getting wiser and kinder as it goes.

I think of myself as a member of the First Space Generation—and

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<sup>1</sup> Don't ask me how; I might answer.

<sup>2</sup> You think *you* got problems with *your* exhaust emissions?

I saw many of my contemporaries out there in the audience. We were the very last kids ever to be laughed at by our teachers and elders for believing that men would walk on the Moon one day.

I also observed a few survivors of the *real* First Space Generation: the one slightly before mine, that was actually putting men in orbit and bringing them down alive when I was in short pants.

The generation I expected to see least represented was the one that that immediately followed mine. The poor in-betweeners. They came just after the First Great Push Into Space, and most never did quite get what it had been all about. They arrived just before the Next Great Push Into Space which is now (finally!) beginning to gather strength, and the ones that showed up that night were among the few of that cohort who really get what that is going to be all about—namely, the longterm survival of their species.

This was the generation that had no problem with the US government *burning* (not digitizing or even microfilming—*burning*) all the blueprints and specs for the Apollo launch vehicle, the stupendous vessel that put men on the Moon, to save storage space. This is the generation that was okay with destroying or selling for scrap all the stockpiled parts, the special pumps and one-of-a-kind valves, parts machined to incredible tolerances, the most sophisticated tools ever built by bald apes. Why not? The space race was over, wasn't it? We won. Time to chill, Buck Rogers.

I can't really blame them: they were grossly misinformed and misled by their journalists, their politicians and their movie makers, who persuaded them space had nothing to do with them and their lives. We science fiction writers continued to do our best as always, but by and large we got drowned out.<sup>3</sup> To our horror, as Hollywood blurred the lines it didn't even realize existed

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<sup>3</sup> "People who read books—next on *Geraldo!*"

between science fiction and fantasy, readers migrated en masse from Lazarus Long and the Ship Who Sang to Harry Potter and the Lord of the Rings. As our society was coming (for the first time) to depend *utterly* on science and technology for its very existence—we perhaps understandably got sick of hearing about it, weary of all the thinking it called for.

And despite all that, there were about as many members of that age group present in the MacMillan Space Center Auditorium that night as any other, an encouraging sign.

I think of myself as just entering my Golden Years—I always have, since about fifteen minutes before I was born in 1948. But when my friend Isaac Asimov was once asked by a journalist to settle an argument on just when the *real* Golden Age of Science Fiction had been, he smiled and said, “Thirteen”—and I saw more than a few of *Isaac’s* kind of Golden-Ager out there in the Auditorium Saturday night, too. Bright, alert, smart, concerned, aware teenagers (and even a few pre-teens) who believe the future can be improved, and who think thinking is the way to do it, and who are ready, as Ted Sturgeon said, to keep on asking the *next* question. If we can average two or three of those per high school, we can save the world—no question in my mind.

I cannot tell you how much hope and joy it gave me to see that crowd, and hear the questions they had. Not just the young’uns, either. Their presence was the most exciting and reassuring—but what gassed me most of all was the *span* of ages. No age group was unrepresented. The only other event I’ve seen with such a multigenerational audience in years was Crosby, Stills, Nash and Young’s Freedom of Speech Tour last summer. All my friends and I had to give *our* crowd for entertainment last week was science facts and Powerpoint presentations—but they too seemed to leave happy.

Age is irrelevant: the only requirement for interest in space and

space travel is brains. Reading the paper or *Time* these days, watching network or cable TV, listening to commercial radio, it can become very difficult to believe there are any brains left in North America. I think that is why the MacMillan's brilliant Executive Director Donna Livingstone has been making such a concerted effort over the past few years to redefine and reimagine the Space Centre, striving to make it more relevant, to "put the planet back in Planetarium," to reach out as widely as possible for people with brains, of *all* ages, and try to get them all talking. I suspect it's why, for instance, she dreamed up the novel idea of a Writer-in-Residence at a planetarium in the first place.<sup>4</sup>

Thanks to Donna, once I meet a novel deadline at the end of this month, I'll start recording myself reading aloud the eight essays I've published on this site so far, and make them available as podcasts here, with other podcasts hopefully to follow in future. That gives the Centre a shot at reaching the visually impaired or print-challenged...as well as little kids with brains who haven't finished teaching themselves to read and write yet. I won't be surprised if before too long this website has a videos page too. Science is slowly getting hipper.

The signs are all around: it's Railroading Time for space enthusiasts. The cover of this month's *WIRED* depicts dozens of spacecraft launching at once; the accompanying story is called "Rocket Boom." It took long enough, but finally billionaires like Richard Branson. Jeff Bezos and Elon Musk are tripping over each other in the race to become the first space trillionaire, and that much money pressure can change history. Always has, in fact.

It might even be in time. The only practical hope I see of solving our planetary ecology problems is exploitation of space. We simply have to stop meeting our energy needs and our materials

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<sup>4</sup> Don't ask me how she sold it to the Canada Council: even science fiction can't explain *everything*. Thank god.

needs by ripping both of them up out of the ground. There is free power in space, 24-7-365, waiting only to be collected and distributed. There are free metals and minerals in the Asteroid Belt, waiting only to be collected, processed far from the environment, and landed as consumer goods. There are steps we can take from space to globally *control* our planet's weather, cheaply and efficiently—Guy Immega, a writer himself, is at work on a novel right now explaining how.

Everything we need to save ourselves is a few hundred miles above our heads. To get there, in time, we need the Second Space Generation, to inspire it and to push for it. What Donna Livingstone, Raylene Marchand, Lisa McIntosh, Erika Korstrom and all the rest of the Space Centre staff are doing—and the response that's been coming back—help persuade me that the Second Space Generation is indeed forming, even as we speak. I sense their efforts are making the place a genuine Space Centre in more than just name: a locus and a focus for everyone in the Pacific Northwest who's smart enough to realize that our real salvation lies, not in the heavens, but in the stars. British Columbia may well end up remembering Harvey Reginald MacMillan for his planetarium long after anyone recalls what "Mac-Blo" was or what an Order of Canada meant.

I'm honoured and grateful to have been a part of that...and as my Residency now officially draws to a close, I'd like to thank the entire staff and board of the H.R. MacMillan Space Centre, and especially Donna, for allowing me this opportunity to use their soap box. I'll continue to work with the board, and in other ways, and of course I'll keep writing optimistic science fiction stories about people who solve their problems by applying their brains, and with any luck by the time we have our first official Space Centre party in orbit, they'll still be letting me drink champagne.

Leave 'em with a song, they say. To help me promote VARIABLE STAR, my friend David Crosby kindly contributed a

tune to some lyrics I had written into Chapter One. I hope to do a full-scale professional studio recording of it someday down the line—all I'll need is a lot of spare time and money—and when that happens perhaps I'll find the nerve to ask David to sing harmony. In the meantime the best I can offer you is this impromptu live performance of the song my wife Jeanne and I did last October for Jeff Cavanaugh on WTBBL, the splendid Seattle radio resource for the blind and print-challenged. The recording is rough, imbalanced, muddy and monaural...but gee, I love those harmonies.

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Listen at [www.spacecentre.ca/calendar.htm](http://www.spacecentre.ca/calendar.htm)

**On the Way to the Stars**  
(Spider Robinson and David Crosby)

The reason we're going to Mars is, we know  
it's a step on the road to the stars

It's the reason we hang out in bars, don't you know:  
cause we can't find our way to the stars

I could bear all these losses of ours if I knew  
we would meet again, out in the stars

On the way to the stars—  
Every molecule in you was born in the heart of a star  
On the way to the stars—  
In the night they're the light that'll help you to know  
where you are  
yes they are  
from so far...

It's the reason we came from the mud, don't you know

cause we wanted to climb to the stars

In our flesh and our bone and our blood we all know  
we were meant to return to the stars

Ask anyone which way is God, and you know  
he will probably point to the stars

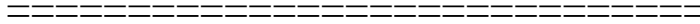
On the way to the stars—  
Every molecule in you was born in the heart of a star  
On the way to the stars—  
In the night they're the light that'll help you to know  
where you are  
yes they are  
from so far...

I can't prove it's so, but I'm certain: I know  
that our ancestors came from the stars

It would not be so lonely to die if I knew  
I had died on the way to the stars

And if we do our part and we follow our heart  
our descendants are bound for the stars  
Yes, our children will dance in the stars...

On the way to the stars—  
Every molecule in you was born in the heart of a star  
On the way to the stars—  
In the night they're the light that'll help you to know  
where you are  
yes they are  
from so far...



Thank you very kindly for reading these essays. Now go invest in a telescope or a spaceship, if you haven't already, so you can get started on your own way to the stars.

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*BC writer Spider Robinson has published 33 books since 1973, and won the Hugo Award three times so far; for further information visit [www.spiderrobinson.com](http://www.spiderrobinson.com) or [www.variablestarbook.com](http://www.variablestarbook.com) .*

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