

metallic lifeforms, artificial worlds

The Whorl list — 2 messages, 2 voices, 13 May 1999

<https://urth.darkrealm.vip/thread/whorl/610>

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Michael Andre-Driussi — 13 May 1999, 15:02

Greg Neyman wrote:

but the basic nutrients will be there, stuff like amino acids and simple lipids ... there was this experiment conducted a few years ago ... a student created a proto-earth-like environment in a glass tube ... methane/ammonia rich air ... UV and electrical (lightning) bombardment ... the next morning, he had simple organic chemical chains dripping from the electrodes ... chemicals that were compatible with earth life.

Yes, but actually, as I understand it, the experiments you describe produced =both= Left-handed and Right-handed amino acids, in equal amounts. The odd thing is, all life on Earth is built from Left-handed amino acids.

So what happened to all the Right-handed DNA lifeforms? Or is D-DNA life just somehow impossible, and L-DNA the only life in the galaxy/universe?

The situation is rather similar to the question facing astronomy regarding anti-matter: if anti-matter was created at the Big Bang, then where is it today? If it was created in amount equal to that of matter, as it seems it should have, then mutual annihilation would have taken out both. Puzzling. But astronomy at least has stars to look at--xenobiology is still purely speculative.

I don't see

why terraforming robots necessarily need to be self-aware ... anymore so than the pathfinder probe that's rusting on Mars right now is "self-aware" ... the pathfinder probe was limitedly self-aware ... it knew it was the thing that was to respond to all instructions from Earth ... and that's all the terraforming robots need to know ... they're the agents that will be enacting all implanted commands ... they maybe very complex commands, ones that demand a very sophisticated AI, but that doesn't necessarily demand sapience

Well, using the Pathfinder as a terraforming role model is flawed, since Pathfinder was relying upon human feedback with a relatively short delay cycle, whereas terraforming will have a delay cycle of years or decades (hmmm, still . . . there's an idea! Since the terraforming process takes so long anyway, maybe phone home for questions? Ah, but who will answer the phone?). But granted, terraforming robots don't need to be self-aware, but as I meant to say, it sure would be handy, since it seems that it would at the very least have to know when it was "hungry" (GOTO refuel subroutine), "hurt" (GOTO self-repair subroutine), and "horny" (GOTO singles bar subroutine). If the robot is not self-replicating, then the mission is nearly hopeless or so overweighted with an army of robot one-shots that you might as well send humans--the robots have been priced out of the market (prohibitively expensive star flight).

And if Von Neumann-style reproducing robots are used, then it looks a lot like "life"; which is why I brought up that detail about the ethics of exterminating even a disease on Earth today. Nevermind if it is self-aware or not.

Now then--on to something new.

Artificial Worlds.

What happens to lifeforms on a world that is completely artificial? We are aware of how various details of a planet work their way into the lifeforms; even how continents shape the lifeforms into their own signature design.

Niven's Ringworld is a case where, iirc, humanoids have expanded to fill every ecological niche. So there are grazer humanoids, and carnivore humanoids, and ghoul humanoids, and vampire humanoids, etc. Yes, Stapledon did a similar thing, but in Niven's case it brings us closer to Gene Wolfe's beastmen scenarios, from "Tracking Song" (which even has strong hints of terraforming) through "The Tale of the Boy Called Frog" and so on.

Maybe relating to the worlds of Blue and Green.

Maybe relating to Saint Anne and Saint Croix. Depends on how we read that scenario. If it is the real star I think it is, then the human explorers would believe it could not harbor habitable planets . . . not =natural= ones, at least. But sure, it could easily handle a terraformed world or two (in fact, it would be =prime real estate= for those capable of doing such things, because the long life of the star), and the freaky "twin planet" set-up could help keep both planets rotating, maintaining habitability for both.

This is highly speculative! There is no direct hint that the worlds were built from scratch by some forerunner starfaring race. And there are the usual cans of worms involved, etc. But the Point I'm trying to convey right now is that: if it =is= a pair of artificial worlds, this might go a ways toward explaining how very messed up and artificial-seeming all the humanoids are--that is, they are being shaped by their physical environment, in the same way that Ringworld shapes humanoids into grazers, carnivores, ghouls, etc. And their flaws reflect, mimic, mirror the hidden-yet-present flaws of the planet.

Wolfe is keenly aware of how environment shapes the lifeforms, a fact his readers are well aware of. So this 5HC thought may be fanciful but it is well within Wolfe's field of interest.

=mantis=

*This is WHORL, for discussion of Gene Wolfe's Book of the Long Sun.

Alastair Reynolds — 17 May 1999, 12:51 · follows Michael Andre-Driussi

Mantis:

Yes, but actually, as I understand it, the experiments you describe produced =both= Left-handed and Right-handed amino acids, in equal amounts. The odd thing is, all life on Earth is built from Left-handed amino acids.

someone had a theory recently (it was covered in New Scientist) that neutron stars might be responsible for the left-handedness of life here, and - by extension - throughout the Galaxy. Yes, I know it sounds unlikely...and unfortunately, I'm buggered if I can remember the details!

AI

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