

## Lost in Space

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*Mankind is drawn to the heavens for the same reason we were once drawn into unknown lands and across the open sea. We choose to explore space because doing so improves our lives and lifts our national spirit. [U.S. President George W. Bush.]*

At 6.07 a.m. GMT on Tuesday June 8<sup>th</sup> 2004, the planet Venus began a rare four-hour passage across the face of the sun. Half the world watched, through devices ranging from gigantic solar telescopes through to paper-and-pinhole viewers, or via the internet. This unusual event has not been seen since 1882, and the only forthcoming ‘transit’ any of us will live to see is not until 2012.

There was something spectacularly humbling about the transit. It dwarfed the usual human sense of power and control, for nature dictated terms. The sun blinded anyone who looked carelessly; clouds frustrated even the most eager; and the transit accepted no one’s excuse for being late.

Space is like this. It is vast and impersonal, but keeps drawing people upward. When NASA’s two Mars Exploration Rovers arrived in January 2004, there was the same kind of stir as when the Viking landers of the mid-70’s sent back pictures of Mars’ rocky red terrain, to be emblazoned in glossy colour across ‘souvenir editions’ of tabloid newspapers. The Rovers’ missions are continuing, still being watched closely over the internet by thousands of people around the globe.

Of course, space exploration has a minority-chorus of detractors. Old-time Christian rocker Larry Norman spoke for them all in his ironic 1972 lyric about the Apollo missions: “They brought back a big bag of rocks. Only cost thirteen billion. Must be nice rocks.” Space exploration, it is said, is a moral travesty, when such large amounts of money could be spent to so much better effect on earth. But Virgiliu Pop, an apologist for space-spending, quotes former NASA administrator Thomas Paine: “If we could solve the problems of poverty by not pushing the button to launch men to the moon tomorrow, then we would not push that button.” Social problems are bigger than the amount of money thrown at them. Pop puts this another way:

*\$976.3 billion dollars—almost a trillion—[are] spent every year in the US on pets, toys, gambling, alcohol and tobacco. It is 63 times the amount spent on space exploration—with the difference that NASA has not destroyed lives as the alcohol, tobacco and gambling did. It is not the exploration spirit that Americans need to give up in order to alleviate poverty. It is the consumerist spirit.*

Christians want governments to be generous to the poor and to work on social problems. But at the same time, in Christian thought scarcity of resources are *not* the problem. God has placed us on a planet with such richness of abundance that it continues to sustain six-billion people and counting. The problem, rather, is greed and the other aberrations of the human heart, which a cutting-back on space exploration cannot change. Historically, Christians have been as deeply fascinated by the discovery of God’s cosmos as anyone else, because all of it is so “very good” [Gen. 1:31]. There is a place for wonder even at the rocks of Mars and the moon.

What is perhaps more interesting is the *meaning* of space exploration for many people. For example George Bush believes that the mere act of exploration is somehow integral to being human, and that to do so improves and lifts us (see above). Exploring, it seems, is more about us than about what is explored.

And enthusiasts for the current Mars missions retain the slim hope that some kind of evidence of other life will be found there, despite the previous failure of Viking to find any. For many space explorers, this quest for other life is the holy grail. Hence there also exists a worldwide effort called *SETI@home*, where more than five million private computer users have assisted to find any evidence of alien radio conversation. They have expended nearly *two-million years* of computer time, trawling through radio signals received by the Arecibo radio telescope in Puerto Rico, the largest such telescope in the world. Although no alien evidence has been found, enthusiasts can always retreat into the vastness of space: only limited frequencies in a mere 4.3% of the sky have yet been covered; and anyway, aliens might not use the radio.

What are we to make of such effort? Larry Norman's take on the reasoning behind the "big bag of rocks" was that "we need a solution, we need salvation!! So they sent some people to the moon to gather information." Much space exploration is precisely this: not so much a celebration of God's cosmos, as a spiritual search. That much is certainly obvious in some of the buzz surrounding the search for extra-terrestrial life. It is as if, pretending God to be dead, we need the company of some older, wiser alien instead.

There may indeed be life elsewhere, even sentient life; and if so, we will celebrate that too. But space exploration, and the search for extra-terrestrials, have become the pinnacle of our culture's overall mythic confidence in science. In 1996, *Scientific American* journalist John Horgan wrote a provocative and controversial book called *The End of Science*. In it, he asked a scandalous question: What if science is over? He knows that science will continue to be applied to various human problems. But what if all the 'Big Discoveries' have been made? Horgan knows the standard reply, that 'they thought science had finished at the end of the nineteenth century, but look what happened.' His reply to the reply is that things really do seem to be different now (but readers unfamiliar with science might need to skip the following quotation!):

[S]cience itself, as it advances, keeps imposing limits on its own power. Einstein's theory of special relativity prohibits the transmission of matter or even information at speeds faster than that of light; quantum mechanics dictates that our knowledge of the microrealm will always be uncertain; chaos theory confirms that even without quantum indeterminacy many phenomena would be impossible to predict; Kurt Gödel's incompleteness theorem denies us the possibility of constructing a complete, consistent mathematical description of reality. And evolutionary biology keeps reminding us that we are animals ... [End of Science pp. 5-6]

When it comes to space, Horgan's point is: maybe we really are stuck here, on earth, forever. He admits that "any proof that life exists—or even once existed—beyond our little planet would constitute a huge surprise" [p. 17].

But how likely is it that we will discover life elsewhere? ... [U]nless we find some way to transcend Einstein's prohibition against faster-than-light travel, chances are that we will never attempt to visit another star, let alone another galaxy. A spaceship that can travel one million miles an hour, a velocity at least [ten times] greater than any current technology can attain, would still take almost 3,000 years to reach our nearest stellar neighbour, Alpha Centauri. [p.18]

Arguments with Horgan continue, but one implication of his thesis is hard to deny. The modern world is afraid to think that *this is as good as it gets*, that human life on earth holds no more big surprises, and is now just a task of managing humanity until the sun burns out. The romanticism of space exploration serves a more general myth: that humanity can keep exploring forever, to find some kind of 'answer' out there.

The red rocks on Mars are a bit fascinating; but the more we stare in wonder, the more they seem only to be rocks. Of course, even rocks deserve wonder, so let all exploration of God's wonderful cosmos continue, and even if it costs money. Yet Christian thought says—*earth* really is where the action is! Earth is the good home, given by God, so that our quest can be completed on a 'new earth', under a 'new heaven', "in the enjoyment of God, and of one another in God" [Augustine].

Another well-known observer addressed space exploration thousands of years ago. He wondered at the way infinity works. "Where can I go from your Spirit? Where can I flee from your presence? If I go up to the heavens, you are there" [Psalm 139:7-8]. On another occasion, he was stunned at the way humanity figured within infinity. "When I consider your heavens, the work of your fingers, the moon and the stars, which you have set in place, what is man that you are mindful of him, the son of man that you care for him? You made him a little lower than the heavenly beings and crowned him with glory and honor" [Psalm 8:3-5]. David's insight here is spectacular enough. But how could he have imagined the biggest 'extraterrestrial' incursion of all time, by Jesus Christ? [Cf. Philippians 2:5-8; Hebrews 2:6-9.]

We need not be lost in space. Our quest is over, if only we will stop fleeing from being found.

- Andrew Cameron & Tracy Gordon, for the Social Issues Executive, Diocese of Sydney

### Sources/extra reading:

- John Horgan, *The End of Science: Facing the Limits of Knowledge in the Twilight of the Scientific Age*. London: Little, Brown & Co., 1996.
- Great images of the Transit of Venus: <http://vt-2004.kva.astro.su.se> or <http://smh.com.au/photogallery/2004/06/08/1086460286984.html> .
- NASA's Mars Exploration Program: <http://marsprogram.jpl.nasa.gov>
- "Bush unveils vision for moon and beyond," CNN.com January 15<sup>th</sup> 2004; online at <http://www.cnn.com/2004/TECH/space/01/14/bush.space> . (Note that Bush's proposals for increased funding and changes in the direction of space exploration have gone no further. Perhaps there is plenty of confusion about why we do it!)
- Virgiliu Pop, "Is Space Exploration Worth the Cost?" *SpaceDaily* Jan 19<sup>th</sup> 2004; online at <http://www.spacedaily.com/news/oped-04b.html> .
- Headquarters for the SETI@home initiative: <http://setiathome.berkeley.edu>
- Larry Norman, *Only Visiting This Planet*, © MGM/Verve Records, 1972.
- Augustine, *The City of God*. Cambridge: University Press, 1998. (Bk. XIX.13 & XIX.17.)
- Meteorite sighting in Sydney: [http://seattlepi.nwsourc.com/national/apscience\\_story.asp?category=1501&slug=Australia%20Meteorite%20Mystery](http://seattlepi.nwsourc.com/national/apscience_story.asp?category=1501&slug=Australia%20Meteorite%20Mystery)

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