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In the opening words of the Creed we claim to believe in a God who created heaven and earth. That idea comes directly to us from *Genesis*, which also tells us that at each stage of creation, the Creator looked at this creation and said it was Good.

In the *Psalms*, we're told "the heavens proclaim the greatness of God." In *Genesis*, we're told how at their creation "the stars shone in their watches, and were glad; he called them, and they said, 'Here we are!' and shone with gladness for Him who made them." And in Paul's *Letter to the Romans* – the Jews and the Christians and the Muslims – should also support science as a way of getting to know God. That's the irony of the so-called war between science and religion: science itself is actually borne out of religion.

After all, where is most science done? At universities. And who founded those universities? The church. Indeed, until the middle of the 19th century and the rise of the state universities, many scientists were in fact clergymen. Who else had the education and the free time to go out collecting and classifying leaves and bugs and all the other day-to-day, data-gathering things that form the backbone of science? And what do we call the work of sorting and filing information? Clerical work. Work done by clerics.

possibly believe that you could find God in the book of nature.

And so, this means that as astronomy expands our understanding of what is in creation and how it operates, it inevitably colours the ways we understand,



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God and the Mystery of the Universe

Guy Consolmagno SJ

11 April 2008

Of course, the understanding of the universe that “everyone knows” is true was, in fact, the Ptolemaic model.

But this difference did not lead to a fifth-century crisis comparable to the Galileo affair. Instead, most theologians continued to see in this physical cosmology a reflection of the non-physical universe. They assumed that the physical universe mirrors the spiritual realm, describing a “chain of creation” where the orbital “spheres” of the observed planets were moved by the angels in the space between Earth and the Firmament, the final sphere of the universe, beyond which the saints themselves could be found. Beyond that, the perfect eternal circular motions of the planets were placed in contrast to the irregular



which mass-marketed this idea, albeit an idea still labelled as *A* / or *A* . But it was only when we've actually been able to see the real planets in our solar system, close up, that this reality has come home to us at a gut, emotional level.

Meanwhile, about a year ago, a team lead by Stéphane Udry of the Geneva Observatory announced the discovery of three planets around the red dwarf star, Gliese 581, a star only twenty light years away from us. Apparently one of these planets is only about eight times the mass of Earth and about 50% bigger in radius. Orbiting close to its sun, its year is less than two weeks long; but because that star is so small and dim compared to ours, even at that close distance the temperatures on this planet will only range between zero and 40 Celsius... Room temperature. Water should be liquid there, perhaps covering its surface with oceans ripe for life.

Space telescopes optimized to search for planets, especially terrestrial planets, are being designed; the first are being built; a French prototype called COROT has already been launched, and found its first planets. They'll study dense fields of stars like the Milky Way that is found in the constellation Cygnus. Instead of the two hundred or so planetary systems that have been discovered so far, ten years from now we may know tens of thousands of systems that have planets... including, I repeat, Earth-sized terrestrial planets. This is "many worlds" with a vengeance.

All these planets pose the ever increasing possibility of extraterrestrial intelligence. Indeed, for the last twenty years there's been an intense (if so far unsuccessful) search for life outside of Earth. How does this challenge the assumptions underlying the traditional explanations of original sin and Christ's salvation?

This question has been debated for centuries. Two hundred years ago, the astronomer John Herschel saw life on other planets as the inevitable result of God's fecundity, while Thomas Paine mocked the idea of a Saviour who had to suffer and die, over and over again, on countless worlds.



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