

ORIGINS – PHYSICS 43/RELIGIOUS STUDIES 43 – PAPER – SPRING 2014

Your essay should be a comment to the following excerpt from Carl Sagan's book *Pale blue dot*.

Please remember that since this class fulfills the GE writing requirement, your essay should be at least 1,800 words long.

Also, when commenting on this passage, you are required to add quotations from the reading that you have done for the class in order to strengthen the arguments you make. E.g., you might want to draw from Martin Rees and his discussion of the anthropic principle, or you might explore the text of *Genesis* and of other creation myths, or you might want to engage with what Augustine has to say about the human condition and link that to what this passage implies about the human condition. (NB: these are just SUGGESTIONS of possible texts to draw upon, please feel free to draw your own connections from whatever class material you see fit).

Also, keep in mind that you are not required to do a textual analysis of the ENTIRE passage, but you can select specific themes or issues raised in this excerpt that you decide to comment on. E.g., you can focus on the implications of Sagan's claim that 'the Earth is a very small stage in a vast cosmic arena' and talk about the relationship between Earth and the universe, or you can reflect on Sagan's reference to the 'endless cruelties' and explore issues of power—once again, these are simply SUGGESTIONS of possible threads you can pull, feel free to select your own thread.

Your grade will depend on the strength of your arguments, on your engagement with the class material, on your ability to connect the three disciplines you have been studying (i.e. History, Physics, and Religious Studies), and on the quality of your writing.

Finally, remember that the paper is due on or before June 5th, in lecture --you should write the paper on your computer, bring a PAPER copy to class, and save an electronic copy for your records.

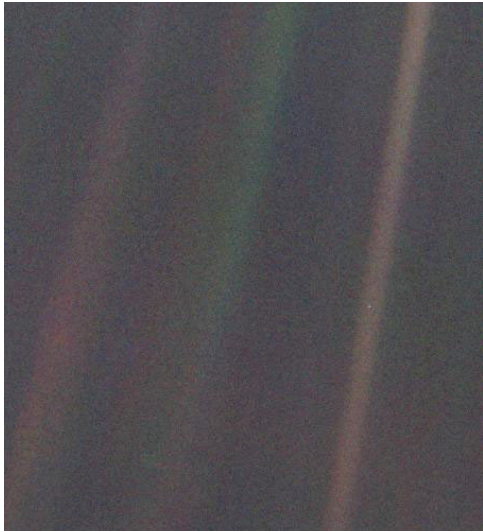


Figure 1. This narrow-angle color image of the Earth, dubbed 'Pale Blue Dot', is a part of the first ever 'portrait' of the solar system taken by Voyager 1. The spacecraft acquired a total of 60 frames for a mosaic of the solar system from a distance of more than 4 billion miles from Earth and about 32 degrees above the ecliptic. From Voyager's great distance Earth is a mere point of light, less than the size of a picture element even in the narrow-angle camera. Earth was a crescent only 0.12 pixel in size. Coincidentally, Earth lies right in the center of one of the scattered light rays resulting from taking the image so close to the sun. This blown-up image of the Earth was taken through three color filters -- violet, blue and green -- and recombined to produce the color image. The background features in the image are artifacts resulting from the magnification.

“Look again at that dot. That's here. That's home. That's us. On it everyone you love, everyone you know, everyone you ever heard of, every human being who ever was, lived out their lives. The aggregate of our joy and suffering, thousands of confident religions, ideologies, and economic doctrines, every hunter and forager, every hero and coward, every creator and destroyer of civilization, every king and peasant, every young couple in love, every mother and father, hopeful child, inventor and explorer, every teacher of morals, every corrupt politician, every "superstar," every "supreme leader," every saint and sinner in the history of our species lived there--on a mote of dust suspended in a sunbeam.

The Earth is a very small stage in a vast cosmic arena. Think of the rivers of blood spilled by all those generals and emperors so that, in glory and triumph, they could become the momentary masters of a fraction of a dot. Think of the endless cruelties visited by the inhabitants of one corner of this pixel on the scarcely distinguishable inhabitants of some other corner, how frequent their misunderstandings, how eager they are to kill one another, how fervent their hatreds.

Our posturings, our imagined self-importance, the delusion that we have some privileged position in the Universe, are challenged by this point of pale light. Our planet is a lonely speck in the great enveloping cosmic dark. In our obscurity, in all this vastness, there is no hint that help will come from elsewhere to save us from ourselves.

The Earth is the only world known so far to harbor life. There is nowhere else, at least in the near future, to which our species could migrate. Visit, yes. Settle, not yet. Like it or not, for the moment the Earth is where we make our stand.

It has been said that astronomy is a humbling and character-building experience. There is perhaps no better demonstration of the folly of human conceits than this distant image of our tiny world. To me, it underscores our responsibility to deal more kindly with one another, and to preserve and cherish the pale blue dot, the only home we've ever known.”