Pale Blue Dot: a photograph that inspired a book by Treeves

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â€˜Pale Blue Dotâ€™ was a book written by Carl Sagan in the year 1994. The book was inspired by the â€˜pale blue dotâ€™ photograph. Carl Edward Sagan was an American astronomer, astrophysicist, cosmologist, author and science communicator in astronomy and natural sciences. He published more than 600 scientific papers and articles and had author, co-author and edited of more than 20 books. He advocated skeptical inquiry. He also pioneered in exobiology and promoted the Search for Extra-Terrestrial Intelligence.

Two space probes, Voyager 1 and Voyager 2 were launched in 1977 as a part of the Voyager program. It was a U.S space mission. Taking advantage of a favorable planetary alignment, the probes were deployed. Though the probes were designated to study just Jupiter and Saturn, they were able to continue their mission into the outer solar system. 34 years and 6 months into the mission, the probes are set the exit the Solar System. The space crafts carry a gold-plated audio-visual disc. The discs carry photos of the Earth and its life forms, a range of scientific information, spoken greetings from people and a medley, "Sounds of Earth", that includes the sounds of whales, a baby crying, waves breaking on a shore, and a collection of Earth music, including works by Mozart and Chuck Berry's â€˜Johnny B. Goodeâ€™.

After the Saturn encounter, Carl Sagan thought it might be a good idea to make the probe take one last glance homeward. From Saturn, the Earth would appear too small for Voyager to make out any detail. Our planet would be just a point of light, a lonely pixel, hardly distinguishable from the many other points of light Voyager could see, nearby planets and far-off suns. But precise because of the obscurity of our world thus revealed, he suggested that a picture might be worth having.

Voyager 1 was a long way from home, beyond the orbit of the outermost planet and high above the ecliptic plane. The probe was speeding away from the Sun at 40,000 miles per hour. But in early February of 1990, it was overtaken by an urgent message from Earth. Obediently, it turned its cameras back toward the now-distant planets. Slewing its scan platform from one spot in the sky to another, it snapped 60 pictures and stored them in digital form on its tape recorder. Then, slowly, in March, April and May, it radioed the data back to Earth. Each image was composed of 640,000 individual picture elements. The spacecraft was 3.7 billion miles away from Earth, so far away that it took each pixel, traveling at the speed of light five and a half hours, to reach us.

There it was, a mosaic of squares laid down on top of the planets and a background smattering of more distant stars. They were able to photograph not only the Earth, but also five other of the Sun's nine known planets. Mercury, the innermost, was lost in the glare of the Sun. Mars and Pluto were too small, too dimly lit and too far away. Uranus and Neptune were also dim that long exposures were needed to record their presence.

Because of the reflection of sunlight off the spacecraft, the Earth seems to be sitting in a beam of light, as if there were some special significance to this small world. But it's just an accident of geometry and optics. The Sun emits its radiation equitably in all directions. Had the picture been taken a little earlier or a little later, there would have been no sunbeam highlighting the Earth. From this distant vantage point, the Earth might not seem of any particular interest.

But to us, it's different. Sagan gives a sobering description which goes as follows, â€• 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, ever king and peasant, every young couple in love, every moth and father, hopeful child, inventor and explorer, every teacher of morals, every corrupt politician, every "superstar,â€• every "supreme leader," every saint and sinner in the history of our species lived thereâ€”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 momentary masters of a fraction of a dot. Think of the endless visited by the inhabitants of one corner of this pixel 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.â€•

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. This 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.

If you are interested in astronomy, you can join internet forums and meet like minded people. These forums can be reached through popular high speed ISPs like Xfinity Internet.

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Treeves - About Author:
Tina is a freelance writer and blogger. She enjoys writing about astronomy groups on the internet and some of the popular highspeed internet service providers like a Xfinity Internet.

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