

Heasley_2004

Copyright © 2004 by John M. Heasley. Published by The Mars Society with permission

**MARTIAN LITERATURE:
EDUCATING GENERATION MARS FOR THE VOYAGE AHEAD**

John M. Heasley

Richland Center High School

23200 Hornet High Road

Richland Center, WI 53581

heaj@richland.k12.wi.us

“It is the scientists who have thought hardest and best about the realities of Mars. . . . But there are artists in here too, and writers, and poets, and people whose dreams take no such articulated form, but still focus themselves on the same rock in the sky. They illuminate Mars; Mars illuminates them.”

-Oliver Morton, *Mapping Mars*

Mars has long attracted our gaze and our imagination. This fascination has been well documented, but there are a few stories that stand out for me. I read of Robert Goddard, climbing a cherry tree as teenager in Massachusetts in the 1890s and imagining a voyage to Mars. He learned to keep this dream to himself, but he did go on to pioneer the use of liquid-fueled rockets. In his audio reading of *The Martian Chronicles*, Ray Bradbury recounts how he stretched out his arms in 1930s Illinois and tried to will himself to Mars. In *Cosmos*, Carl Sagan tells how he attempted to repeat this experiment in 1940s New York. I found myself wondering if the young people in school today still have Martian dreams.

In the closing minutes of class one day last February, I read to them a passage from Michael Benson's *Beyond* about the images sent back by our interplanetary probes:

Sifting through a self-congratulatory final press release archived at the Mars Pathfinder site, I was suddenly, unexpectedly, moved. Contact with the lander was lost, it said, in early October of 1997. That was after nearly three months of continuous operation--much longer than expected. The loss of communication was attributed to the failure of the lander's battery, which in turn cut power to the heater. "After that," the text read, "the lander would begin getting colder at night and go through much deeper day-night thermal cycles. Eventually, the cold or the cycling would probably render the lander inoperable."

But little Sojourner is almost entirely solar-powered. It was just as animated as ever when all contact with Earth was lost. I came across the following sentence: "The health and status of the rover is ... unknown, but ... it is probably circling the vicinity of the lander, attempting to communicate with it."

The poignancy of it! The pathos! Powered forever by the inexhaustible Sun, impervious to the cold, Sojourner may to this day be wearing grooves in that ochreous desert floor. And we've forgotten our cybernetic creation, literally leaving it to its own devices. Having chipped,

hammered, glued, and then welded and screwed together the matter we're surrounded with, we've finally endowed it with eyes, ears, and a capacity for self-direction--something like early life itself. We've propelled it at extreme velocities to distances that redefine how far human artifacts can go. And we've left it to circle, or even to beeline out of the solar system—still seeking orders, still trying to communicate with us.

My students were unexpectedly moved. They remembered Sojourner. It roved across Mars when they were in fourth grade. They had played with the Hot Wheels and Lego models. With parents, they visited the website. There was some anger at NASA's seeming indifference. "Why doesn't Sojourner fly home?" "Is NASA going to send another probe to get Sojourner?" "Why didn't NASA include extra batteries?" I found myself wondering if they saw in Sojourner something of themselves. Is this what it is like to be a teenager? Roving into some new world, trying courageously to report back what you see? They seem to have adopted a policy of "No Rover Left Behind."

I had this experience in mind, as I designed and taught a three-week summer school course in Martian Literature at our rural high school in the Driftless Region of southwest Wisconsin. There are a number of advantages of teaching in summer school. I was able to team-teach with a Social Studies colleague. There is more room for experimentation. You can teach outside your content area. You can create blocks that extend beyond the normal forty-five minute class. As an elective, students have volunteered for the course and you can create a space where it is safe to be smart.

It is important to understand who these students are. Neil Howe and William Strauss in *Millennials Rising: The Next Great Generation* identify students born 1982-2000 as Millennials who "will correct what they perceive to be the mistakes . . . of boomers by placing positivism over negativism, science over spiritualism, team over self, duties over rights, honor over feeling, action over words." The reliability of this prediction is still being determined, but it does provide students with a sense of identity and positive mission for the future.

It is the grandparents of these students who remember Sputnik and the parents who remember the Apollo landing. They have no memory of Viking or Challenger. They do recall the success of Pathfinder, Spirit, and Opportunity and the failure of Columbia. In a Mars Society paper entitled "Preparing for the Journey: An Introduction to Mars Education," Donald M. Scott identifies the work to be done: "A major Mars preparation task needs more attention. This is the education of the "Mars Kids": the children now in school who will design, fund, and conduct the human missions to Mars."

The success of Martian Literature depended on an integrated, multidisciplinary approach. Too often, a young person's experience of high school is one of fragmentation and disconnection. John Locke wrote, "The mark of genius is the ability to discern not this thing or that thing but rather the connection between the two." More recently, Jesse von Puttkamer argues that "We need a new frame of mind that shifts the emphasis from individual subjects to the interactions and relationships between them" (*Spaceflight and the New Enlightenment*).

Martian Literature follows this vision. Students read science fiction novels and viewed movies to discover how Mars has been imagined. They used planetarium software (Starry Night) and an

inflatable StarLab to learn how Mars moves through the heavens. They built model rockets to learn the basics of propulsion. They viewed space and landscape art to see how Mars has been pictured. They studied history to place Mars in context. They constructed a website and made public presentations at MarsFest 2004 to share the results of their research. They heard a guest lecture from propulsion researcher Dr. Jordan Maclay and made a field trip to Chicago to tour the Adler Planetarium and the Museum of Science and Industry.

The course considered several questions. When it comes to Mars, do we see what is there or what we want to be there? Will we terraform Mars, or will Mars areoform us? Is the frontier thesis applicable to Mars? Are aliens wise or demonic? Do ecosystems and planets have rights? Is Mars a promised Utopia? Does gender matter when voyaging to Mars?

You do not need an astrologer to know that Mars is very much a planet for our times. In 1999, young people were looking forward to a fine new millennium. There was every indication that we were moving closer to a vision of “one world, one people, one future.” Within two years, students and teachers watched together as fundamentalists attacked the Twin Towers. It became a time of war, fear, and terror. Students were presented with a future in which they would be called upon to wage an interminable war against an emotion. Martian Literature is an attempt to end fear and regain hope by allowing students to imagine a more peaceful and cooperative future as we leave our home and travel to our new world.

REFERENCE

Lists of novels, movies, and resources can be found at the website we created. Go to www.richland.k12.wi.us and select Martian Literature under student projects.