Review of Marina Benjamin's Rocket Dreams

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Introduction

Marina's Benjamin's *Rocket Dreams* investigates what she sees as the redirection of the human psychological drive following the simultaneously crowning and killing achievement of the Apollo program, the Moon landing. To Benjamin, the legacies of Project Apollo are a handful of dead, rusting relics at Cape Canaveral and the quotidian extension of NASA's work into satellites, robotic probes, and other less-spectacular regimes, which together represent the death of the space program's early promises.

Summary

Benjamin traces the impact of the dead and changed dreams as a rechanneling of the human urges to meet others and explore new frontiers. With actual space travel languishing, she investigates the Kennedy Space Center, the purported alien landings at Roswell, the latest "new frontier" of cyberspace, and the fusion of cyberspace and outer space embodied by the SETI@home project.

Benjamin's disappointment in NASA's failure to realize the grandest dreams of the Space Age's early prophets shows in the first chapter. What others see as the abundant roadside greenery of Central Florida is to her the swamp trying to reclaim the works of man, presumably in order to wash out the bitter taste left behind by the unfulfilled dreams. Roswell's annual UFO Festival shows the next logical step for the dreamers: changing faith in humankind's self-generated destiny among the stars to faith that aliens will share their star-traveling destiny with us. She also logs on to the virtual Alphaworld and interacts with the users there, noting how many virtual worlds become more real than the real world to some of their users, and how the internet promotes freedom of thought and expression, much as the American West is imagined to have done. She finally brings together the two in her chapter on SETI@home, which uses the power of the internet, via distributed computing software freely available online, to extend the analysis of Search for Extraterrestrial Intelligence data.

Critical Reaction and Examination of Sources

Benjamin's primary sources are her own research and travels, and her disappointment in NASA flavors her every trip. One almost wonders if the fact that SETI

was not affiliated with NASA or space exploration during the Apollo era (mostly because SETI did not yet exist) is part of the reason she can look on it without distaste.

While Benjamin has done her research on some of the biggest dreamers in the realm of space exploration, covering Clarke and the 1950s *Collier's* series on space travel, as well as a number of others whose concepts shaped the public perception of the future of spaceflight and space colonization (such as Gerard O'Neill and Robert Zubrin), it is notable that she pays very little attention to policy and policy-makers. Despite noticing that Vice President Gore's association with the Triana project contributed greatly to killing it, she doesn't investigate the ways in which other politicians or highly-placed NASA officials can support or destroy other programs. In short, since Project Apollo died so shortly after its greatest triumph, she decides to have done with it and leave her hurt to go chasing after things associated with space exploration but not actually parts thereof. She sees the Space Shuttle as more of a NASA attempt to routinize space travel than to accomplish bold new goals, yet fails to note that the very fact of space travel becoming so everyday as to be barely newsworthy is a step on the path to the attainment of the great dreams of the past.

Benjamin's deeper focus is in fact on ideas rather than actual events or objects, as evidenced when a glimpse of the massive Vehicle Assembly Building in the distance provides her with more inspiration than a close look at a gigantic actual Saturn V rocket. She relies on local myth and generalized statistics to grasp the VAB's immensity, while the titanic dimensions of the Saturn V, which are generally apparent to all who observe them and are, in fact, the driving reason for the VAB's stupendous size, pass unnoticed.

Benjamin's most interesting claim is that cyberspace truly represents what space had been hoped to become. SETI was never a highlight of the space program during any of its halcyon days, but the farming out of its data to the internet community for processing has proven wildly successful. Benjamin traces this success to a human desire to be part of something bigger, to connect.

Relevance to Project Apollo

This book examines the cultural aftereffects of the Apollo project, and is in that sense peripheral to our understanding of Apollo itself. Thus Launius' five categories are

of immediate use here, as the book falls squarely into the fifth category: the recontextualization of the Apollo narrative into modern society and culture. Intriguingly, Benjamin demonstrates some understanding of the fourth (history of science, leading up to Apollo) and third (fascination with the astronauts and their flights) categories, as when she sees the way in which a story of past progress in aviation and exploration is parlayed into a vision of future achievements, by noted scientists and noted science fiction writers, and when she finds some of the retired astronauts at a celebrity convention in California and observes not only an air of reverence among the attendees but also a great deal of knowledge of "missionographies."

Relation to a Major Policy Decision

The policy design that underlies the entire book is the cancellation of the Apollo program. An extremely important technical issue tied up with this decision deals with NASA's focus areas. The "airmen or chauffeurs" debate has already been played out in a number of arenas, but it recurs here in terms of remote probes versus human exploration, and the pendulum swung (much as it continues to swing) back and forth between manned and robotic missions. When the manned Apollo program was cancelled, the way was opened for the unmanned Viking, Voyager, and other bold exploration missions of the 1970s. It is interesting to note that the Shuttle and the ISS, along with the Hubble Space Telescope, represent a return to manned efforts, while the "faster, better, cheaper" NASA of the 1990s was a swing back into robotic missions. Benjamin, seemingly feeling betrayed by the failure of the manned Apollo program, finds solace in the unmanned Mars Pathfinder mission of 1997, saying that NASA had again found "something of its old sparkle."

Conclusion

How could it be that after such great success, the Apollo program was abandoned before it was even completed? This book has its genesis in that question, because Benjamin seems to have believed that the Apollo program would end with humans on Mars, or Jupiter, or in the next solar system over. But she sidesteps it to answer in detail the related one: what do people do now instead of Apollo? It may be that the two are

intertwined: just as space travel reached what probably would have amounted to a relative plateau of achievement, the interest of the public turned towards other things, like mysticism, cyberspace, and combinations of the two with traditional space travel or each other. A good example of this is the Pathfinder mission, where telepresence was combined with space travel to deliver media-friendly pictures and internet video.

Benjamin's thesis is that the greatest new frontier is not space but something else, probably a combination of space and cyberspace. Her investigation of outer space exploration actually reveals a natural human tendency to turn to inner space, demonstrated when the astronauts repeatedly experienced near-spiritual euphoria or revelations on the Apollo flights, and confirmed by the fact that a renewed focus on conserving the Earth's resources was one of the side benefits of the Moon missions.

Benjamin's personal association of space travel with the great idea of colonization and the destiny of the human race is another datapoint. Her conflation of reality with an ideal shows exactly how humans prefer the exploration of ideas rather than physical places. It is completely reasonable that the spaces most closely associated with ideas, that is, inner space and cyberspace, would become the preferred places to visit, rather than outer space. Benjamin thus recasts the Apollo program as a spiritual experience which provided a gateway to new areas of exploration, both for some of the individual astronauts and for the public as a whole.

If Benjamin's thesis is correct, then the number of people currently participating in either the new digital revolution or the ongoing wave of spiritualism may in fact represent those prepared to support a renewed and revitalized space program, especially one which includes a vision of manned exploration and bold new leaps. The key lesson would be that people require a feeling of connection to an event in order to desire and support participation in it. For Apollo, many outside factors, such as Kennedy's charisma and a Cold War-driven national competitiveness, as well as the overall novelty, contributed to the connection the public felt with the project. To retain such connection for a renewed space program would probably require an intense public relations effort, or fortuitous outside circumstances.

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