Into the Cosmos: Space Exploration and Soviet Culture. Ed. James T. Andrews and Asif A. Siddiqi. Pittsburgh: University of Pittsburgh Press, 2011. xii, 330 pp. Notes. Index. Illustrations. Photographs. \$27.95, paper.

This collection of ten essays brings together historians of technology and culture to explore the phenomenon of the Soviet space program in the late 1950s and 1960s, focusing on the question of why and how space exploration resonated so deeply with the population. Edited by two historians who have written extensively on the history of Russian and Soviet rocketry and space, this volume places in tandem the material and cultural ramifications of Soviet orbital satellites and cosmonauts.

The Soviet space program announced itself to the world in 1957 with the stunning launch of the first orbiter, *Sputnik*, and the history of Soviet space exploration cannot be separated from the history of the Khrushchev era writ large, as this volume eloquently argues. The projects of de-Stalinization, Cold War posturing, socialist expansionism, and the first steps toward the promotion of a consumer society developed simultaneously with the Soviet conquest of the cosmos. As many of the essays in this volume argue, the moment mattered: the 1957 Youth Festival begat the youthful Gagarin, the feats of the cosmonauts reinforced pronouncements and policies adopted at Communist Party congresses, and the population's pride in its cosmonautic heroes translated, for awhile, into support for the socialist system that had beaten the capitalists into space. *Into the Cosmos* is an unusually coherent volume, in which three key themes of state agency, popular culture, and the fetishization of secrecy provide points of connection and discussion among the essays.

The state initiated the space program, of course, whose mission grew integrally out of the development of rocketry for military purposes, as Asif Siddiqi emphasizes in his chapter. Moreover, adds James Andrews, the state served always as the mobilizer of scientific knowledge, harnessed through the space program both for national defense and for "pure" research. The state also managed the public content of the space program, writes Slava Gerowitch in his chapter, "The Human Inside the Propaganda Machine," deliberately creating the myth of the cosmonaut as Soviet everyman, men of humble beginnings and loyal military service, whose public performances were carefully stage managed to avoid tarnishing their starry images. The space program also came to serve other state projects, including the renewed assault on religion under Khrushchev. As Victoria Smolkin-Rothrock writes, however, the conquest of the cosmos did not instantly discredit belief in a spiritual heaven above, and atheist activists eventually abandoned the linkage in favor of other forms of secular and philosophical education. In the German Democratic Republic, the triumphal visit of cosmonaut German Titov to Berlin followed closely on the construction of the Berlin Wall, and was utilized, writes Heather Gumbert, to symbolize to East Germans that although their borders to the West were now sealed off, their partnership with the USSR had opened up the unlimited opportunity of the cosmos.

This state-directed effort resonated strongly with the Soviet population for a number of reasons, write the contributors, including the long-standing myth of space flight as the savior of humanity (Alexei Kojevnikov), and a long tradition of popular science and astronomy (James Andrews). A newly confident Soviet public now looked ahead to the promise of true communism and parity with the capitalist West; like the

1957 Moscow Youth Festival, space missions and the heroics of the cosmonauts tapped into this post-Stalin commitment to prosperity and utopia. Roshanna Sylvester explores the particular resonance of the cosmonaut Valentina Tereshkova, and shows that for at least the decade of the 1960s, the popular press coverage of space flight inspired school girls to imagine themselves as future cosmonauts, scientists, and engineers. Amy Nelson's fascinating essay on the experimental space dogs beginning with the ill-fated Laika discusses the position of space canines as "boundary objects," in which the dogs served both as brave scouts and ordinary heroes, experimental subjects and objects of their own celebrity cults. Cathleen Lewis examines the phenomenon of collecting space memorabilia—postage stamps and metal badges (znachki)—as the embodiment of a new consumer culture. One might question her argument that these little objects were purveyed to distract Soviet consumers from the lack of the real thing (collectibles were not the only commodities on offer in the 1960s); she does point out the entrepreneurial initiative of mid-level managers, who authorized the manufacture of znachki in order to join in the general space enthusiasm.

The third theme of secrecy provides the link that complicates the picture of the harmony of interests between party and people when it came to space. After all, it was not until 2002 that the details of Laika's tragic end were made publicly known. Andrew Jenks's excellent piece on Gagarin the "Sincere Deceiver" emphasizes the contradiction between the space program's need for secrecy and the countervailing Thaw period ethos of "sincerity" and openness. The public icon of guilelessness, Gagarin led a life of constant deception in order to protect state secrets, to shelter his wife from worry about his mission, and to preserve his celebrity image as the all-Soviet boy, despite his hard-

partying private life. Gerowitch emphasizes the ways in which the combined need for secrecy and propaganda reduced the celebrity cosmonauts to a set of clichés. Siddiqi and Nelson point out how the Academy of Sciences served as the public face of the space program in order to project the project as one of peaceful science, but its true masters were the nameless officials and scientists of the defense establishment, whose identities could never be known.

Such secrecy and clichés led eventually to deep cynicism about the space program and the system it represented, writes Jenks. Smolkin-Rothrock cites a 2001 essay by Viktor Pelevin to emphasize the disillusionment that followed the exciting space feats of the 1960s. Pelevin had always wondered what was contained in the little silver suitcases the cosmonauts carried to their space craft; and when he found out they carried the star voyagers' excrement, his world cracked. He "had long ago noticed that it was not just cosmonauts who carried such suitcases with them, but every Soviet person" (194). Indeed, this welcome scholarly collection makes a superb companion volume to Pelevin's breakout 1993 *Omon Ra*, a darkly absurdist novel of Soviet cosmonautics.

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