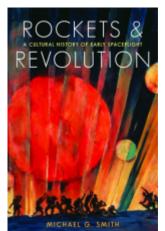
Rockets & Revolution: A Cultural History of Early Spaceflight





In the past two decades, historians of astronautics have vastly broadened their understanding of this subject to include the role of spaceflight in national imagination, the cultural symbolism of space imagery and artifacts, the social mechanisms of mass enthusiasm about space, and the interplay of public mythology and professional cultures of astronauts and space engineers. The traditional subjects of their interest – space missions, rocket engineering, and astronauts' lives – have become closely intertwined with cultural representations of spaceflight in literature, commerce, or state propaganda (Andrews and Siddiqi 2011; Maurer et al. 2011). *Rockets & Revolution* is a welcome addition to this growing body of scholarship, which explores tortuous paths of ideas about spaceflight across continents and disciplinary boundaries, and through the permeable borders between literature, popular science, and scientific discourse.

While cultural studies of spaceflight often focus on connections with science fiction, Michael G. Smith widely broadens this perspective and traces multiple allusions to spaceflight in poetry, short fiction, and novels, which often encapsulate essential artistic views. *Rockets & Revolution* offers a fascinating tour of Russian literary trends of the early twentieth century, illustrated by their contrasting attitudes toward space themes: the Symbolists "projected human desires of fear and longing, love gained and love lost, on the moon and sun, planets and stars" (p. 39), while the Futurists invented a "star language" to liberate humanity from the gravitational pull of ordinary language and to reach "for the infinite and eternal" (p. 87). Smith does not limit his analysis only to the space enthusiasts; cultural critics of the space fad are prominently featured in the book as well, such as when he writes about the Acmeists, with their longing for simple, earthly things, stripped of lofty celestial symbolism. The very division between the "enthusiasts" and the "critics" is effectively challenged here, as Smith shows how literary parodies, such as Alexei Tolstoy's *Aelita*, unexpectedly become cultural vehicles of public interest in space. By citing multiple allusions to and echoes of works of American and European literature that permeated Russian writings, Smith presents a unified literary landscape in which ideas cannot be traced to a single origin, and borrowing becomes the norm.

Just as easily as ideas about space crossed national borders, they traveled across different disciplinary and cultural contexts: from technological utopias to biological rejuvenation projects, to philosophical visions of immortality to dreams of political liberation. Political revolutions, scientific revolutions, and revolutions of heavenly spheres somehow excited one another, making the liberation from the forces of gravity, political oppression, limitations of space, and constraints of time part of a single cultural impulse.

Following excellent studies by James Andrews and Asif Siddiqi (Andrews 2009; Siddiqi 2010), Smith critically examines the much-celebrated Russian cosmism and places it in an international context. Establishing multiple connections between the views of Tsiolkovskii, Fedorov, and others with their Western contemporaries strips Russian cosmism of its claim of uniqueness, yet adds a rich genealogy to the Russian, and then Soviet, fascination with spaceflight. Their ideas boiled in an amazing cultural soup with such ingredients as interplanetary communication, alien worlds, reincarnation, theosophy, Mesmerism, galvanism, alchemy, immortality, international language, telegraphy, and telepathy.

Instead of focusing on tiring priority disputes, Smith examines how the tension among the claims made by Tsiolkovskii, Goddard, and Oberth played a stimulating role in the spread of their views. A boom around the ideas of one raised interest in the ideas of the others, adding fuel to the Mars Craze of 1924 and similar popular fads. Smith places the Soviet fascination with the work of Goddard in the context of "Soviet 'Americanism,'" a broad industrial productivity movement inspired by Fordism and Taylorism. Space enthusiasts thus appear as a group of intellectuals well attuned to the cultural trends of the day. Smith's analysis of the mutual shaping of science fiction and science fact furthers Siddiqi's argument about the "co-production" of utopian imagination and engineering in Soviet rocketry.

This convincing picture, emerging in earlier chapters, somewhat contrasts with Smith's later description of early groups of space enthusiasts in Germany, Russia, and America as "marginal" both geographically and culturally and with his emphasis on the leading role of the Soviet government that promoted "a race for the stratosphere" (p. 252) in making rocketry an established field. It would be important to add, following Siddiqi, that state support often came as a result of lobbying by networks of space enthusiasts and amateur groups, which were closely intertwined with official institutions.

Smith's cultural analysis of the Stalin-era gradual transformation of rocketry from an amateur field into a giant top-priority weapons program draws on a variety of interesting sources – from the books that Stalin read on his first job as an astronomical observer to popular science publications in American and European magazines, as well as archival findings among the documents of the first rocket design bureaus. Discarding the claims of spiritual ancestry from Russian cosmism, Smith emphasizes Western roots of Stalinist rocketry drive and argues that the "Soviets co-opted the values and slogans of Western popular science to the level of official ideology and state policy" (p. 321). This provocative idea is likely to generate disputes not only among space historians, but among historians of the Stalinist period in general.

An engaging read, *Rockets & Revolution* brings a variety of new sources and a refreshing perspective into the debates about the cultural dimensions of spaceflight. Weaving together technology and literature, Smith reconstructs a cultural space in which formulas and parabolas meet with symbols and parables. Both historians of astronautics and historians of literature will find some of their assumptions challenged and will benefit from reading this book.

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