BOOK REVIEW

VOICES OF THE SOVIET SPACE PROGRAM: COSMONAUTS, SOLDIERS, AND ENGINEERS WHO TOOK THE USSR INTO SPACE



By Slava Gerovitch

Palgrave Macmillan, 2014 ISBN: 978-113748178-8

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One cannot overstate the importance of this volume to those who do not read Russian but are interested in the history of the Soviet space program. The collection contains thirteen interviews collected between 2002 and 2010 by Slava Gerovitch, a historian of science and technology at MIT. In Part I "The Soldiers," Gerovitch talked with Commanding Officer Abram Krayzman, who "played a key role in the transfer of rocket technology and know-how from Germany to the Soviet Union" [20] after World War II, and Construction Engineer Sergey Safro, who served at Tyuratam (Baykonur) as a military construction officer. Part II "The Engineers" showcases the testimonies of six men who worked at various Soviet design bureaus: Engine Designer Anatoliy Daron, Guidance Engineer Sergei Khrushchev, Control Engineer Georgiy Priss, Radio Engineer Felix Meschansky, Display Designer Yuriy Tyapchenko, and Computer Designer Viktor Przhiyalkovskiy. The final section, Part III "The Cosmonauts," includes interviews with flown cosmonauts and cosmonaut trainees: "Cosmonaut 13" Vladimir Shatalov, Test Cosmonaut Mikhail Burdayev, Scientist Cosmonaut Ordinard Kolomiytsev, "Second Backup" Valentina Ponomareva, and Stress Psychiatrist Ada Ordyanskaya. This range of perspectives are indispensable to the author's project—to set into one volume the multiplicity of viewpoints necessary to reconstruct "the collective identity of Soviet space program participants" [6] while at the same time elucidating the "distinct engineering cultures" that coexisted in the various Soviet design bureaus [7].

Gerovitch conceived of the volume as a challenge to the Soviet "master narrative [which] reduced space history to a set of clichés: flawless cosmonauts, inspired by Communist ideals, flew perfect missions, supported by unfailing technology, proving the superiority of Soviet science and engineering and, by implication, of the Soviet way of life" [3]. He also takes issue with Russia's "new, nationalist master narra-

tive"—a product of the "recent nostalgic turn to Soviet-era symbols of national greatness and pride" [5]. Gerovitch's interviews bring to light "a wealth of factual detail" [1]. But "instead of attempting to construct a single, 'true' narrative of events," Gerovitch explores the "clash of memories" and "subjectivity of the experiences of Soviet space program participants" [1] in order to "present the human face of the Soviet space program" [13].

The excellent introductions that head up each of the interviews capture with succinct clarity the main thrust of each piece, highlighting the main themes: "institutional rivalries, the clash of engineering cultures of aviation and rocketry, the tensions between the space industry and the cosmonaut corps, the debates over the division of function between human and machine, secrecy restrictions, and the competition with the United States" [12]. The richness of the volume springs in part from the wealth of technical detail it includes. But it comes, too, from the vivid accounts of everyday life in the post-Stalin Soviet Union and the coping strategies engaged in by those operating in a milieu that was on the one hand clandestine and on the other utterly quotidian. In addition to the main themes, interviews touch on attitudes about ethnicity, gender, and generation; political culture; the interlacing of private and public worlds; the economies of favor and prestige; and much else. Anti-semitism and sexism also come into view at various points in the interviews.

Few scholars would be better placed to attempt such a project. Gerovitch does a wonderful job in the introduction explaining the value of oral history as an approach, and distinguishes it theoretically from memory studies. It becomes clear to the reader almost immediately that Gerovitch possesses both advanced knowledge of the scientific and technological disciplines under discussion and a sophisticated, highly nuanced understanding of the Soviet system. The erudition of the interviewer is tremendous, as the footnotes frequently demonstrate. The level of trust that exists between Gerovitch and the interviewees is quite stunning, and the questioning superb. Gerovitch guided the interviews skillfully without interjecting his own critique. He established authority by connecting with his subjects as an insider while simultaneously embracing the critical distance that comes from external expertise.

At first glance, it might appear that this volume of oral histories is aimed at a highly specialized audience. In fact, though, the book has much to offer general readers, space enthusiasts, and experts alike. The interviews are illustrated with photographs, which helps put faces to the narrators' experiences. A selected bibliography of primary and second-

ary materials is also quite useful for students and others with a desire to do additional research. As Gerovitch points out in his introductory essay, Boris Chertok's four-volume memoir (published in English under the title *Rockets and People*) has tended to dominate scholarly accounts of the history of the Soviet Union's human spaceflight program. Thanks to Gerovitch, English-language readers now have more than a dozen perspectives to consider as they move beyond the narrative of "tri-

umphs" and "tragedies" to explore the complexities, conflicts, and multiplicity of human experiences that lay at the heart of the Soviet space program.

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BOOK REVIEW

SPACE PIONEERS: IN THEIR OWN WORDS



By Loretta Hall

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Like the field of human space exploration, the development of oral history as a method for documenting events and recording history is relatively young. It emerged in the 1940s as a method to gather, preserve, and interpret the voices and memories of people using tape recorders, a new and novel technological achievement of the time. Although confined to the experiences of the individual being interviewed and thus captured only recent history, it differs from traditional historical accounts in one important way: it tells the story in their own words.

More often than not, published oral history accounts in the field of space history feature prominent historical figures, such as Neil Armstrong and Buzz Aldrin, and while those provide important insight into a highly dynamic era of human space exploration, so do those of the lesser known. Recognizing that the lab technicians, weather forecasters, chimpanzee handlers, welders, and helicopter pilots also have important stories to tell, Loretta Hall dove into the archives at the New Mexico Museum of Space History and International Space Hall of Fame in Alamogordo to extract and compile 90 oral histories of many lesser-known pioneers in space history.

The 90 oral history accounts presented in the book represent approximately two-thirds of those on record at the institution, and most are those not otherwise published in mainstream literature. Among these are stories of trials, tribulations, and laughter. Earl Cline worked at Holloman Air Force Base, where he participated in Daisy track tests in the 1960s. His story recounts the interesting dichotomy of physical trauma suffered

by human test subjects, including his own, balanced by the love of research. He says: "I really enjoyed it. I enjoyed being a part of a bigger picture of the space program. Even if it was a minute, little part, it was still a part of it. It gave me something to be proud of."

Other accounts include those by G. T. Lamberth, who worked at Holloman Air Force Base in the early 1960s. He described the mischievous behavior of the chimpanzees, one who often found his way into the tool trailer: "we had one that would get loose out in the compound once in a while...that little wart, he would take [the wrenches] down one at a time, look at them, and hang them back up."

Lengthier, chapter-long accounts by those like Apollo flight director Gene Krantz and Space Shuttle Commander Eileen Collins provide an even more in-depth and holistic perspective to their roles in space exploration. Collins' observations from space on humanity's impact on Earth are particularly poignant.

Space Pioneers: In Their Own Words is relatively unique in its primary focus on minor players in space exploration history, which provides insight into the day-to-day challenges of research and development that tend to get lost in the bigger picture. Accordingly, its contribution to the field of space history earned it a 2014 Winner of the New Mexico-Arizona Book Awards.

The book is organized into 18 thematically grouped chapters that span the period between the 1940s and 1990s. Although the author edited and corrected the accounts with a "gentle but firm hand," they still retain the spirit and memories of those interviewed; their voices are clearly heard. German scientist Cynthia Sommers-Guzevich summed it up nicely: "White Sands is old history. People don't know what we did out there." Thanks to Loretta Hall, now they do.

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