RED COSMOS

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Roger D. Launius, General Editor
RED COSMOS
K. E. TSIOLOKOVSKII, GRANDFATHER OF SOVIET ROCKETFY
JAMES T. ANDREWS
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To My Mother, Eleni
Helen Raisides Andrews
Whose personal commitment and Greek cultural heritage
have instilled in me since a child the importance of education
and its enlightened powers. And who, like Tsiolkovskii, always
told me to reach for the stars.

And to My Father, Athanasios
Thomas James Andrews
Who survived the Nazi occupation of his native Athens in the
1940s and the protracted civil war that followed, only to come to
America, labor endlessly, and build a bright future for his family.
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PREFACE

In 1935, in Stalin’s times, a young journalist working for the Young Communist Youth League’s Newspaper (Komsomolskaia Pravda), Evgeny Riabchikov, made a pilgrimage to Kaluga in provincial Russia to interview the grandfather of Russian cosmonautics, K. E. Tsiolkovskii. At that time, Tsiolkovskii was old and sickly, and would pass away in September of that same year. Riabchikov, working on stories about Soviet aeronautics and space design, was interested in interviewing Tsiolkovskii and finding out his thoughts on new developments at the Moscow and Leningrad centers of design research. After interviewing Tsiolkovskii, Riabchikov was convinced that Tsiolkovskii’s childhood bout with scarlet fever motivated him to become an overachiever and establish himself as a self-taught physicist and scientist with a vision for the future. Riabchikov wrote about his encounter with Tsiolkovskii in his famous book on Soviet space flight, entitled Russkie v kosmose (Russians in Space), and in a series of newspaper articles he wrote in the 1930s on the topic.

Sixty-five years later, in the summer of 2000, I began a series of similar pilgrimages to Kaluga. However, I was in search of Tsiolkovskii’s legacy and therefore came to this provincial town for different reasons. I had already been working extensively in the archives at the Russian Academy of Sciences, where Tsiolkovskii’s papers had been organized since he donated his materials to the Soviet Communist Party on his death in 1935. One of his daughters had been a member of the Socialist Revolutionary Party during the 1917 revolutionary era. She had survived the cataclysmic events, and she later organized his papers after his death in order to have them transferred first to the Communist Party, and then eventually to the Russian Academy of Sciences. Her father had initially bequeathed all his papers to the Communist Party in gratitude of its financial aid and support of his work and vision.

I came to Kaluga with much experience with central and provincial archives in Russia from my previous book projects. Furthermore, I came to revisit the Tsiolkovskii story in a much broader
context; that is, I was interested in Tsiolkovskii’s work as a provincial teacher, a popularizer of science and technology, a visionary, a philosopher, as well as a technical inventor ahead of his time. I was also interested in placing this scientist and inventor within a historical, cultural, and political context because I firmly believed his story had been wrenched inadvertently from that broader context in the past. The focus in the Soviet-era historiography (or hagiography) on Tsiolkovskii had almost exclusively been on his technical achievements and contributions to the foundations of space flight and rocketry—though, in my opinion, these are still somewhat significant achievements.

When I arrived in Kaluga by train, I happened to be wearing a suit and a tie, because I had arranged an immediate meeting with the head of the Tsiolkovskii National Museum of Cosmonautics. Usually I am more discreet traveling throughout the former Soviet empire, but this time I was in a hurry. I boarded a local bus, which as usual was about to tip over at every turn because it was overcrowded. Upon paying my ticket fare, the entire bus, including the driver, began to drill me. Are you a reporter from Western Europe or America? Have you come to write about our local hero, Tsiolkovskii? I was somewhat taken aback. Though I have always had to answer questions, particularly in the provinces, from Russians as to why I was living or working in a particularly remote place, I never had such blunt questions thrown at me so quickly—they were usually more casual conversations in a market by interested locals. Besides, I was a bit stunned at how proud, if not knowledgeable, the average Kalugan was about Tsiolkovskii. Of course, every Russian schoolkid in Soviet times, of my generation at least, knew who Tsiolkovskii was and had a vague picture of his embellished accomplishments. However, Muscovites today usually mock the Tsiolkovskii story as a Soviet myth propagated in the history books (which it was, at least to some extent). So it was interesting to see Kalugans, at least those I met, so obsessed with letting their fellow countrymen in central capitals know that this physics teacher was, at least in their mind, for real.

When I left the bus that first day, everyone waved at me, with their hands stretched through the windows, in a strange collective
(if not comical) manner from some bygone time, and at the end of that bus line lay the Tsiolkovskii National Museum of Cosmonautics. Bizarrely, it is a large, modern, stunning white building on the banks of the Oka River, sitting there like Frank Gehry’s Guggenheim Museum among the placid birch trees in a desolate area on the very outskirts of this provincial Russian town. I was given a warm welcoming after I carefully explained my project to the archivists at the museum and at the local provincial archive, which I had papers to work at issued by the central Russian Academy of Sciences Institute, of which I am an affiliate in Moscow. However, several associates at the museum were a bit skeptical of my interests because a few space historians in Moscow (documented in the introduction below) have recently tried to overemphasize, at least in my opinion, that the Bolsheviks themselves created Tsiolkovskii and propagated a purely fabricated myth about his genius. Though there is a grain of truth in this notion, it is almost revisionist history in the opposite extreme from old Communist Party historical propaganda and mythology. Furthermore, the Tsiolkovskii story, as noted above, is far more complex and part of a greater history of Russian cosmonautics, provincial education, political history, identity formation, and even popular culture in Russia across the revolutionary divide.

Since 2000, while working in Kaluga, I witnessed as an objective observer a type of Tsiolkovskian world. I went on personal tours, with local historians, of his house and workshop (now a public museum); sat out on the second-floor balcony of his house, where he let local schoolchildren view the stars through his telescope; and talked briefly with his distant relatives, as well as at length with local specialists on the history of Russian science and technology. As with my past work in Russian history, I used visits to local sites and a myriad of local and national archives to gain broad insight into my topic. This local knowledge expanded my vision beyond the confines of the central archival material (which itself was invaluable). That time in Kaluga was clearly invaluable to this study in many ways, some of which are hard to document. Below are listed a number of institutions, scholars, and associations that I would like to acknowledge for their help during the
time I researched this book’s topic in Moscow, St. Petersburg, Kaluga, New York City, and in other parts of Russia and the United States.

I am indebted first and foremost to my colleagues in Russia at the Academy of Sciences, especially Irina Sirotkina and Kirill Ros-sianov, who have provided over the last twenty years a sense of collegiality and comradeship that goes beyond the call of academic duty. They provided invaluable help during this project and incisive criticism of my research. I also thank the late Victor Sokolsky and his working group in space history at the Russian Academy of Sciences Institute for the History of the Natural Sciences and Technology. That group, and the institute in general, have been invaluable as a source of academic advice as well as an affiliate home in Russia over the past two decades. I also wish to thank Danil Alexandrov, my colleague and old friend, for his invaluable academic advice on this and related topics, and especially for our mutual interest in local science and public culture. Danya was critical in helping me while I worked in the archives in St. Petersburg, his home city. Furthermore, our conversations over tea at his home in St. Petersburg were helpful when I first was thinking about this topic as both a local and national history.

I owe a lasting sense of gratitude to the staffs of numerous archives and museums where I worked at over an extensive period while researching this book, including the Kaluga Oblast archive, the Russian National Museum of Cosmonautics in Kaluga, the Tsiolkovskii House Museum in Kaluga, the Moscow and St. Petersburg branches of the Russian Academy of Sciences archives, the State Government Archive of the Russian Federation, and a host of other Communist, national, and local Russian archival collections listed in the bibliography.

In the United States, I am indebted to Chief Curator Edward Kasinec and his fine staff at the Slavonic Reading Room of the New York Public Library, who provided invaluable advice and bibliographic resources from his superb collection. Ed and the collection that he has organized over the years have been wellsprings of information for me, and the reading room has been an intel-
lectual nexus for my research projects, past and future. June Farris, at the University of Chicago Regenstein and research libraries, has always been a constant source of informational support, and I thank her as well for her help over the years while I was working on this book and related topics.

I am indebted to several colleagues in Slavic studies and the history of technology for their advice and support of this project from its inception. Loren R. Graham (professor emeritus at the Massachusetts Institute of Technology and at Harvard) has shown constant intellectual support on my projects that intersect science, technology, and cultural history. Loren’s collegiality, friendship, and mentoring have been invaluable to me over the past two decades. I wish to thank Douglas Weiner and Paul Josephson for their interest in this project at an early stage, and their continual collegial support and advice. Loren, Doug, and Paul have set exemplary standards with the high quality of their scholarship. I greatly appreciate the advice of Alexei Kozhevnikov on two of my papers on Tsiolkovskii and the critical conversations I had with Asif Siddiqi on related topics. I deeply respect the work of both Asif and Alexei in the history of Russian science and technology.

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At Iowa State University (ISU), I wish to thank three successive chairs for their encouragement while I wrote this book. George McJimsey, the Pulitzer-nominated biographer of Harry Hopkins, saw the national, political, and propagandistic resonance of the Tsiolkovskii story in the developing cold war history. Andrejs
Plakans has been a constant source of academic and collegial support for my various research projects. Andrejs has been a friend and inspirational colleague in European and Slavic studies. Charles Dobbs, a cold war-era foreign policy analyst, has also seen the relevance of this story beyond Russian cultural and technological history. I thank them all for their intellectual and administrative support. I wish to thank Amy Bix, Hamilton Cravens, David Wilson, Matthew Stanley, Bernhard Reiger, and Alan Marcus—my present and former colleagues in the history of science and technology program at ISU that I once codirected. Alan Marcus particularly was a source of constant academic support, reminding me of the importance of a cultural and biographical history of technology. I also thank Pamela Riney-Kehrberg in history, Debra Marquart in English, and Brenda Daly, English professor and director of the Center for Excellence in Arts and Humanities (CEAH), for their academic support and collegiality. The CEAH generously sponsored two of the many summers of archival and library research on this project. Lastly, for several years I directed a seminar series at ISU, which I created, entitled “The Workshop on the Historical Studies of Technology and Science.” I presented part of my Tsiolkovskii book in this seminar, and deeply respect the collegial environment of its participants, which included Kevin Amidon, John Monroe, Kimberly Zarecor, Thomas Leslie, Michael Golec, Emily Godbey, Robert Hollinger, and Daniella Barberis.

I also wish to thank several colleagues, institutes, and grant organizations globally for their support, as well as hosting seminars where I gave talks related to this book project. The Mellon Foundation generously sponsored my trip to Australia, where I presented on Tsiolkovskii at the University of Melbourne. I thank Sheila Fitzpartick (University of Chicago) and Stephen Wheatcroft (University of Melbourne) for their generous advice and critical commentary on my work in Melbourne. I wish to thank Bernhard Reiger and the history faculty at the International University of Bremen in Germany. Bernhard, now at the University of London, has offered incisive commentary on my work and has been a good friend and colleague. I wish to thank Masanori Kaji and the faculty in the history of science and technology at the Tokyo Institute of
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My family in so many ways has been a constant source of inspiration and support. My wife, Margaret Rose LaWare (Maggie), has seen this book sprout from a conception in St. Petersburg in 1998, when we were traveling together in Russia, to the final product in 2009. She has been a constant source of love, support, and academic and intellectual interchange. Our wonderful family, and our shared life as professors at ISU, has meant more to me than anything this world has to offer. Furthermore, our daughter, Elena Sophie, eight years old, has been a daily joy in our life. She too is a constant inspirational force in my life: from when I was chasing after her while she was learning how to bicycle on the sidewalks of our neighborhood, to her input in an Ames coffee house on the final book title, Red Cosmos.

Lastly, I dedicate this book to the memory of my mother, Helen Raisides Andrews (Eleni Raisithou Andreou), and to my father, Thomas James Andrews (Athanasios Dmitrios Andreou). Neither of them had the educational opportunities that they gave to my brother and me. My father’s youth was interrupted by the Nazi invasion of his native Greece in the early 1940s. He suffered under the protracted civil war that followed and was grazed by a sniper’s bullet while guarding the Suez Canal serving in NATO’s forces in the early 1950s, wondering why he had been sent there in the first place. He came to the United States, taught himself English after marrying my mother, and labored endlessly to give us an education. He is now in his eighties. My mother’s family fled the Ottoman Empire (and its military draft) during the First World War, scattering from Alexandria to Athens, Paris, and eventually New York.
City. My mother lost her father in the late 1930s and had to work tirelessly as an administrative assistant in New York City, while living in Queens in the 1940s, raising three younger brothers and taking care of a mother who only spoke Turkish and Greek. My parents therefore taught me to overcome adversity, find and respect the decency in all human beings, and understand the value of not just education but also what they deem the “cherished basics” in life: life untouched by war and civil tension, clean water and good food, and a warm house to live in. It is thus to my parents, whom I love and respect, that I dedicate this book. May my daughter and her generation understand the hurdles of their elders’ European and Eurasian past and the brightness of their future.

Ames, Iowa
August, 2009