

Competing With The Soviets Science Technology And The State In Cold War America Johns Hopkins Introductory Studies In The History Of Science

Competing with the SovietsScience, Technology, and the State in Cold War AmericaJHU Press

Here, for the first time, in a brilliant, panoramic portrait by the Pulitzer Prize-winning author of *The Making of the Atomic Bomb*, is the definitive, often shocking story of the politics and the science behind the development of the hydrogen bomb and the birth of the Cold War. Based on secret files in the United States and the former Soviet Union, this monumental work of history discloses how and why the United States decided to create the bomb that would dominate world politics for more than forty years.

Transforming Matter provides an accessible and clearly written introduction to the history of chemistry, telling the story of how the discipline has developed over the years.

With startling revelations, Tsuyoshi Hasegawa rewrites the standard history of the end of World War II in the Pacific. By fully integrating the three key actors in the story--the United States, the Soviet Union, and Japan--Hasegawa for the first time puts the last months of the war into international perspective. From April 1945, when Stalin broke the Soviet-Japanese Neutrality Pact and Harry Truman assumed the presidency, to the final Soviet military actions against Japan, Hasegawa brings to light the real reasons Japan surrendered. From Washington to Moscow to Tokyo and back again, he shows us a high-stakes diplomatic game as Truman and Stalin sought to outmaneuver each other in forcing Japan's surrender; as Stalin dangled mediation offers to Japan while secretly preparing to fight in the Pacific; as Tokyo peace advocates desperately tried to stave off a war party determined to mount a last-ditch defense; and as the Americans struggled to balance their competing interests of ending the war with Japan and preventing the Soviets from expanding into the Pacific. Authoritative and engrossing, *Racing the Enemy* puts the final days of World War II into a whole new light.

Ultimately, she shows how a few gifted students of nature changed the way we see ourselves and the universe.

At the height of the Cold War, Soviet ideologues, policymakers, diplomats, and military officers perceived the countries of Africa, Asia, and Latin America as the future reserve of socialism, holding the key to victory over Western forces. The zero-sum nature of East-West global competition induced the United States to try to thwart Soviet ambitions. The result was predictable: the two superpowers engaged in proxy struggles against each other in faraway, little-understood lands, often ending up entangled in protracted and highly destructive local fights that did little to serve their own agendas. Using a wealth of recently declassified sources, this book tells the complex story of Soviet involvement in the Horn of Africa, a narrowly defined geographic entity torn by the rivalry of two large countries (Ethiopia and Somalia), from the beginning of the Cold War until the demise of the Soviet Union. At different points in the twentieth century, this region—arguably one of the poorest in the world—attracted broad international interest and large quantities of advanced weaponry, making it a Cold War flashpoint. The external actors ultimately failed to achieve what they wanted from the local conflicts—a lesson relevant for U.S. policymakers today as they ponder whether to use force abroad in the wake of the unhappy experiences in Iraq and Afghanistan.

Publisher description

Gas! GAS! Quick, boys! reveals for the first time the true extent of how chemistry rather than military strategy determined the shape, duration and outcome of the First World War. Chemistry was not only a destructive instrument of war but also protected troops, and healed the sick and wounded. From bombs to bullets, poison gas to anaesthetics, khaki to cordite, chemistry was truly the alchemy of the First World War. Michael Freemantle explores its dangers and its healing potential, revealing how the arms race was also a race for chemistry to the extent that Germany's thirst for the chemicals needed to make explosives deprived the nation of fertilizers and nearly starved the nation. He answers question such as: What is guncotton? What is lyddite? What is mustard gas? What is phosgene? What is gunmetal? This is a true picture of the horrors of the 'Chemists' War'.

In *Courting Science*, Damon Coletta offers a novel explanation for the decline of American leadership in world affairs. Whether the American Century ends sooner rather than later may depend on America's capacity for self-reflection and, ultimately, self-restraint when it comes to science, technology, and engineering. Democracy's affinity for advanced technology has to be balanced against scientific research and progress as a global enterprise. In an era of rising challengers to America's lead in the international order and an increasingly globalized civil society, a "Scientific State" has a better chance of extending its dominance. In order to draw closer to this ideal, though, the United States will have to reconsider its grand strategy. It must have a strategy that scrutinizes how tightly it constrains, how narrowly it directs, and how far it trusts American scientists. If given the opportunity, scientists have the potential to lead a second American Century through domestic science and technology policy, international diplomacy, and transnational networks for global governance.

Ethical questions about the use of animals and humans in research remain among the most vexing within both the scientific community and society at large. These often rancorous arguments have gone on, however, with little awareness of their historical antecedents. Experimentation on animals and particularly humans is often assumed to be a uniquely modern phenomenon, but the ideas and attitudes that encourage the biological and medical sciences to experiment on living creatures date from the earliest expression of Western thought. Here, Anita Guerrini looks at the history of these practices from vivisection in ancient Alexandria to present-day battles over animal rights and medical research employing human subjects. Guerrini discusses key historical episodes, including the discovery of blood circulation, the development of smallpox and polio vaccines, and recent AIDS research. She also explores the rise of the antivivisection movement in Victorian England, the modern animal rights movement, and current debates over gene therapy.--From publisher description.

How, despite thirty years of effort, Soviet attempts to build a national computer network were undone by socialists who seemed to behave like capitalists.

This book explores how the concept of "competition", which is usually associated with market economies, operated under state socialism in the Soviet Union and Eastern Europe, where the socialist system, based on command economic planning and state-centred control over society, was supposed to emphasise "co-operation", rather than competitive mechanisms. The book considers competition in a wider range of industries and social fields across the Soviet bloc, and shows how the gradual adoption and adaptation of

Western practices led to the emergence of more open competitiveness in socialist society. The book includes discussion of the state's view of competition, and focuses especially on how competition operated at the grassroots level. It covers politico-economic reforms and their impact, both overall and at the enterprise level; competition in the cultural sphere; and the huge effect of increasing competition on socialist ways of thinking.

The Cold War-era experiments of the Global South make clear that socialism is more than Stalinism. Jeremy Friedman looks to Indonesia, Chile, Tanzania, Angola, and Iran to understand how socialism has worked in practice. Each state developed its own socialism, pragmatically addressing local needs and shaping the horizons of socialism today. The conflict between the United States and the Soviet Union during the Cold War has long been understood in a global context, but Jeremy Friedman's *Shadow Cold War* delves deeper into the era to examine the competition between the Soviet Union and the People's Republic of China for the leadership of the world revolution. When a world of newly independent states emerged from decolonization desperately poor and politically disorganized, Moscow and Beijing turned their focus to attracting these new entities, setting the stage for Sino-Soviet competition. Based on archival research from ten countries, including new materials from Russia and China, many no longer accessible to researchers, this book examines how China sought to mobilize Asia, Africa, and Latin America to seize the revolutionary mantle from the Soviet Union. The Soviet Union adapted to win it back, transforming the nature of socialist revolution in the process. This groundbreaking book is the first to explore the significance of this second Cold War that China and the Soviet Union fought in the shadow of the capitalist-communist clash.

The Routledge History of the Twentieth-Century United States is a comprehensive introduction to the most important trends and developments in the study of modern United States history. Driven by interdisciplinary scholarship, the thirty-four original chapters underscore the vast range of identities, perspectives and tensions that contributed to the growth and contested meanings of the United States in the twentieth century. The chronological and topical breadth of the collection highlights critical political and economic developments of the century while also drawing attention to relatively recent areas of research, including borderlands, technology and disability studies. Dynamic and flexible in its possible applications, The Routledge History of the Twentieth-Century United States offers an exciting new resource for the study of modern American history.

Arranged chronologically and thematically, the book highlights how ideas about the appropriate relationships among science, scientists, and the state changed over time.

Investigations of how the global Cold War shaped national scientific and technological practices in fields from biomedicine to rocket science. The Cold War period saw a dramatic expansion of state-funded science and technology research. Government and military patronage shaped Cold War technoscientific practices, imposing methods that were project oriented, team based, and subject to national-security restrictions. These changes affected not just the arms race and the space race but also research in agriculture, biomedicine, computer science, ecology, meteorology, and other fields. This volume examines science and technology in the context of the Cold War, considering whether the new institutions and institutional arrangements that emerged globally constrained technoscientific inquiry or offered greater opportunities for it. The contributors find that whatever the particular science, and whatever the political system in which that science was operating, the knowledge that was produced bore some relation to the goals of the nation-state. These goals varied from nation to nation; weapons research was emphasized in the United States and the Soviet Union, for example, but in France and China scientific independence and self-reliance dominated. The contributors also consider to what extent the changes to science and technology practices in this era were produced by the specific politics, anxieties, and aspirations of the Cold War. Contributors Elena Aronova, Erik M. Conway, Angela N. H. Creager, David Kaiser, John Krige, Naomi Oreskes, George Reisch, Sigrid Schmalzer, Sonja D. Schmid, Matthew Shindell, Asif A. Siddiqi, Zuoyue Wang, Benjamin Wilson

He argues that these programs did far more than spread German industrial science: they forced businessmen and policymakers around the world to rethink how science and technology fit into diplomacy, business, and society itself.

The inherent contradictions of the Space Age -- the mixture of technologies high and low, of nostalgia and progress, of pathos and promise -- are revealed in *Kosmos*, Adam Bartos's astonishing photographic survey of the Soviet space program. Bartos's fascination with this subject led him to seek out places like the bedroom where Yuri Gagarin slept the night before his history-making flight into space, located in the Baikonur Cosmodrome, the one-time top-secret space complex in the Kazakh desert. *Kosmos* presents 94 of Bartos's photographs, rich with the incongruities of the history, science, culture, and politics of the Space Age.

Soviet Robots in the Solar System provides a history of the Soviet robotic lunar and planetary exploration program from its inception, with the attempted launch of a lunar impactor on September 23, 1958, to the last launch in the Russian national scientific space program in the 20th Century, Mars 96, on November 16, 1996. This title makes a unique contribution to understanding the scientific and engineering accomplishments of the Soviet Union's robotic space exploration enterprise from its infancy to its demise with the collapse of the Soviet Union. The authors provide a comprehensive account of Soviet robotic exploration of the Solar System for both popular space enthusiasts and professionals in the field. Technical details and science results are provided and put into an historical and political perspective in a single volume for the first time. The book is divided into two parts. Part I describes the key players and the key institutions that build and operate the hardware, the rockets that provide access to space, and the spacecraft that carry out the enterprise. Part II is about putting these pieces together to enable space flight and mission campaigns. Part II is written in chronological order beginning with the first launches to the Moon. Each chapter covers a particular period when specific mission campaigns were undertaken during celestially-determined launch windows. Each chapter begins with a short overview of the flight missions that occurred during the time period and the political and historical context for the flight mission campaigns, including what the Americans were doing at the time. The bulk of each chapter is devoted to the scientific and engineering details of that flight campaign. The spacecraft and payloads are examined with as much technical detail as is available today, the progress is described, and a synopsis of the scientific result is given.

Scientists throughout history, from Galileo to today's experts on climate change, have often had to contend with politics in their pursuit of knowledge. But in the Soviet Union, where the ruling elites embraced, patronized, and even fetishized science like never before, scientists lived their lives on a knife edge. The Soviet Union had the best-funded scientific establishment in history. Scientists were elevated as popular heroes and lavished with awards and privileges. But if their ideas or their field of study lost favor with the elites, they could be exiled, imprisoned, or murdered. And yet they persisted, making major contributions to 20th century science. *Stalin and the Scientists* tells the story of the many gifted scientists who worked in Russia from the years leading up to the Revolution through the death of the "Great

Scientist” himself, Joseph Stalin. It weaves together the stories of scientists, politicians, and ideologues into an intimate and sometimes horrifying portrait of a state determined to remake the world. They often wreaked great harm. Stalin was himself an amateur botanist, and by falling under the sway of dangerous charlatans like Trofim Lysenko (who denied the existence of genes), and by relying on antiquated ideas of biology, he not only destroyed the lives of hundreds of brilliant scientists, he caused the death of millions through famine. But from atomic physics to management theory, and from radiation biology to neuroscience and psychology, these Soviet experts also made breakthroughs that forever changed agriculture, education, and medicine. A masterful book that deepens our understanding of Russian history, *Stalin and the Scientists* is a great achievement of research and storytelling, and a gripping look at what happens when science falls prey to politics.

Describes the Reagan administration's covert campaign against the Soviet Union that increased stress on the Soviet economy.

Why did the US intelligence services fail so spectacularly to know about the Soviet Union's nuclear capabilities following World War II? As Vince Houghton, historian and curator of the International Spy Museum in Washington, DC, shows us, that disastrous failure came just a few years after the Manhattan Project's intelligence team had penetrated the Third Reich and knew every detail of the Nazi 's plan for an atomic bomb. What changed and what went wrong? Houghton's delightful retelling of this fascinating case of American spy ineffectiveness in the then new field of scientific intelligence provides us with a new look at the early years of the Cold War. During that time, scientific intelligence quickly grew to become a significant portion of the CIA budget as it struggled to contend with the incredible advance in weapons and other scientific discoveries immediately after World War II. As Houghton shows, the abilities of the Soviet Union's scientists, its research facilities and laboratories, and its educational system became a key consideration for the CIA in assessing the threat level of its most potent foe. Sadly, for the CIA scientific intelligence was extremely difficult to do well. For when the Soviet Union detonated its first atomic bomb in 1949, no one in the American intelligence services saw it coming.

The importance of naming and categorizing nature has its roots in the biblical Genesis, as does the problematic view of man's domination over it. Farber (history, Oregon State U.) traces the scientific study of the natural world from its 18th century beginnings with Swedish botanist Linnaeus and his French rival Buffon, through Darwin's synthesis, to the modern theory of evolution (1900-50), and concerns over biodiversity by the "naturalist as generalist" exemplified by Wilson. Includes modest b&w illustrations. Annotation copyrighted by Book News, Inc., Portland, OR.

Stalin's Niños examines how the Soviet Union raised and educated nearly 3,000 child refugees of the Spanish Civil War. An analysis of the archival record and numerous letters, oral histories, and memoirs reveals that this little-known story exemplifies the Soviet transformation of children into future builders of communism and illuminates the educational techniques shared with other modern states. Classroom education taught patriotism for the two homelands and the importance of emulating Spanish and Soviet heroes, scientists, soldiers, and artists. Extra-curricular clubs and activities reinforced classroom experiences and helped discipline the mind, body, and behaviors. Adult mentors, like the heroes studied in the classroom, provided models to emulate and became the tangible expression of the ideal Spaniard and Soviet. The Basque and Spanish children thus were transformed into hybrid Hispano-Soviets fully engaged with their native language, culture, and traditions while also imbued with Russian language and culture and Soviet ideals of hard work, comradeship, internationalism, and sacrifice for ideals and others. Even during their horrific evacuation to the Soviet interior during World War II, the twenty-two Soviet boarding schools designed specifically for the Spanish refugee children – and better provisioned than those for Soviet children – served these displaced niños for fourteen years and transformed them into Red Army heroes, award-winning Soviet athletes and artists, successful educators and workers, and aids to Fidel Castro in building Cuba after his revolution. *Stalin's Niños* also sheds new light on the education of non-Russian Soviet and international students and the process of constructing a supranational Soviet identity.

Chronicles the critical role the sciences have played in American foreign relations since World War II.

The new millennium has been described as ‘the century of biology’, but scientific progress and access to medicines has been marred by global disputes over ownership of the science by universities and private companies. This book examines the challenges posed by the modern patent system to the right of everyone to access the benefits of science in international law. Aurora Plomer retraces the genesis and evolution of the key Articles in the UN system (Article 27 UDHR and Article 15 ICESCR). She combines the historiography of these Articles with a novel perspective on the moral foundations of rights of access to science to draw out implications for today's controversies on patents in the life-sciences. The analysis suggests that access to science as a fundamental right requires both freedom from political and religious interference and the existence of enabling research institutions and educational facilities which promote the flow of knowledge through transparent and open structures. From this perspective, the global patent system is shown to fail spectacularly when it comes to the human rights ideal of universal access to science. The book concludes that a fundamental restructuring of patent institutions is required, in which democratic oversight of patent policies would ensure meaningful realization of the right of everyone to access the benefits of science. Students and scholars of international law, particularly those focusing on intellectual property and human rights, will find this book to be of considerable interest. It will also be of use to practitioners in the field.

The mesmerizing biography of a brilliant and eccentric surgeon and his quest to transplant the human soul. In the early days of the Cold War, a spirit of desperate scientific rivalry birthed a different kind of space race: not the race to outer space that we all know, but a race to master the inner space of the human body. While surgeons on either side of the Iron Curtain competed to become the first to transplant organs like the kidney and heart, a young American neurosurgeon had an even more ambitious thought: Why not transplant the brain? Dr. Robert White was a friend to two popes and a founder of the Vatican's Commission on Bioethics. He developed lifesaving neurosurgical techniques still used in hospitals today and was nominated for the Nobel Prize. But like Dr. Jekyll before him, Dr. White had another identity. In his lab, he was waging a battle against the limits of science, and against mortality itself—working to perfect a surgery that would allow the soul to live on after the human body had died. Mr. Humble and Dr. Butcher follows his decades-long quest into tangled matters of science, global politics, and faith, revealing the complex (and often murky) ethics of experimentation and remarkable innovations that today save patients from certain death. It's an enthralling tale that offers a window into our greatest fears and our greatest hopes—and the long, strange journey from science fiction to science fact.

Aimed at students and scholars new to environmental history, the history of technology, and their nexus, this impressive synthesis looks outward and forward—identifying promising areas in more formative stages of intellectual development and current synergies with related areas that have emerged in the past few years, including environmental anthropology, discard studies, and posthumanism.

NASA research of Earth-Moon mechanics by astrophysicist Robert Newton leads mathematicians of MSU to a breakthrough in the chronology of civilization. *Astronomy Vs. History* dissects every historical age and analyses the data from every source imaginable ??" Greek and Egyptian chronology take a good beating, and it goes rapidly downhill from there. *Almagest* that is supposed to have been written in the 2nd century A.D. by Ptolemy dates to 16th century; Tycho Brahe, Ptolemy and Copernicus take the blame for taking part in creation of the legend of a mythical Classical Age that never was and misdating medieval events as very ancient ones. In *Astronomy Vs. History* we are reminded of the crucial role of eclipses in verifying the dating of major historical events, of stone Zodiacs containing the true dates of such events. Our perception of history begins to change dramatically even before we're through with *Astronomy Vs. History*.

When the Bolsheviks set out to build a new world in the wake of the Russian Revolution, they expected religion to die off. Soviet power used a variety of tools--from education to propaganda to terror—to turn

its vision of a Communist world without religion into reality. Yet even with its monopoly on ideology and power, the Soviet Communist Party never succeeded in overcoming religion and creating an atheist society. *A Sacred Space Is Never Empty* presents the first history of Soviet atheism from the 1917 revolution to the dissolution of the Soviet Union in 1991. Drawing on a wealth of archival material and in-depth interviews with those who were on the front lines of Communist ideological campaigns, Victoria Smolkin argues that to understand the Soviet experiment, we must make sense of Soviet atheism. Smolkin shows how atheism was reimagined as an alternative cosmology with its own set of positive beliefs, practices, and spiritual commitments. Through its engagements with religion, the Soviet leadership realized that removing religion from the "sacred spaces" of Soviet life was not enough. Then, in the final years of the Soviet experiment, Mikhail Gorbachev—in a stunning and unexpected reversal—abandoned atheism and reintroduced religion into Soviet public life. *A Sacred Space Is Never Empty* explores the meaning of atheism for religious life, for Communist ideology, and for Soviet politics.

This monograph provides a concise introduction to the tangled issues of communication between Russian and Western scientists during the Cold War. It details the extent to which mid-twentieth-century researchers and practitioners were able to communicate with their counterparts on the opposite side of the Iron Curtain. Drawing upon evidence from a range of disciplines, a decade-by-decade account is first given of the varying levels of contact that existed via private correspondence and conference attendance. Next, the book examines the exchange of publications and the availability of one side's work in the libraries of the other. It then goes on to compare general language abilities on opposite sides of the Iron Curtain, with comments on efforts in the West to learn Russian and the systematic translation of Russian work. In the end, author Christopher Hollings argues that physical accessibility was generally good in both directions, but that Western scientists were afflicted by greater linguistic difficulties than their Soviet counterparts whose major problems were bureaucratic in nature. This volume will be of interest to historians of Cold War science, particularly those who study communications and language issues. In addition, it will be an ideal starting pointing for anyone looking to know more about this fascinating area.

Closing in the present day with a discussion of the 2017 March for Science and the prospects for science and science diplomacy in the Trump era, the book demonstrates the continued hold of Cold War thinking on ideas about science and politics in the United States.

Candid Science IV: Conversations with Famous Physicists contains 36 interviews with well-known physicists, including 20 Nobel laureates, Templeton Prize winners, Wolf Prize winners, and other luminaries. Physics has been one of the determining fields of science in the past 100 years, playing a conspicuous role not only in science but also in world politics and economics.

These in-depth conversations provide a glimpse into the greatest achievements of physics during the past few decades, featuring stories of the discoveries, and showing the human drama behind them. The greatest physicists are brought into close human proximity as if readers were having a conversation with them. The interviewees span a wide range of scientists, from such early giants as Eugene Wigner and Mark Oliphant to members of the youngest generation such as the 2001 Nobel laureate Wolfgang Ketterle. The list includes famous personalities of our time, such as Steven Weinberg, Leon Lederman, Norman Ramsey, Edward Teller, John Wheeler, Mildred Dresselhaus, Maurice Goldhaber, Benoit Mandelbrot, John Polkinghorne, and Freeman Dyson. Contents: Eugene P WignerSteven WeinbergYuval Ne'emanJerome I FriedmanMartinus J G VeltmanGerard 't HooftLeon M LedermanValentine L TelegdiVal L FitchMaurice GoldhaberJohn N BahcallRudolf MößbauerArno A PenziasRobert W WilsonOwen ChamberlainMarcus L E OliphantNorman F RamseyDavid E PritchardWolfgang KetterleLaszlo TiszaEdward TellerJohn A WheelerFreeman J DysonJohn C PolkinghorneBenoit B MandelbrotKenneth G WilsonMildred S DresselhausCatherine BréchnignacPhilip W AndersonZhores I AlferovDaniel C TsuiAntony HewishJocelyn Bell BurnellJoseph H TaylorRussell A HulseDavid Shoenberg Readership: General readers and physicists. Keywords:Physics;Nobel Prize;History of

Physics;Famous PhysicistsReviews:“I recommend this handy volume, admirably suited for complete reading or browsing, not only to historians of physics and of science but also to practicing scientists, especially beginning ones, as well as to students, who will surely benefit from these inspiring stories by some of physics' leading luminaries.”The Chemical Educator “I heartily recommend this attractive volume, suitable for either complete reading or browsing, to historians of physics and of science, to practicing scientists, and to students, who will surely benefit from these inspiring stories by some of the leading luminaries of physics.”Angewandte Chemie

Few regions of the world are as politically turbulent as the Middle East, and nowhere is the potential for superpower conflict greater. How does the Soviet Union view the Middle east conflict? Can the USSR play a constructive role in the peace process? In this volume, first published in 1990, these questions and others central to an understanding of Soviet strategy in the region are addressed. Previous analysts of Soviet-Middle Eastern relations have tended to emphasize either the cooperative or the competitive aspects of Soviet behaviour. Breslauer instead offers the multidimensional concept of ‘collaborative competition’ to describe the mixed motives, ambivalence, and sometimes conflicting perspectives that have informed Soviet strategy in the region. In such an unstable environment. this strategy of collaborative competition has in turn encouraged ‘approach-avoidance’ behaviour; for example, while the Soviets may seek to moderate their radical allies, they remain fearful that these allies, once moderated, might defect to US patronage. Under Gorbachev, the Kremlin continues to pursue this same strategy but with increased attention to improving collaboration, redefining the nature of the competition, and easing the approach-avoidance dilemma. Breslauer argues that these changes could lead to more flexible Soviet behaviour in the region. This volume combines new, in-depth research on Soviet policy with new interpretations, including insights drawn from relevant theories of international relations. When Neil Armstrong and Buzz Aldrin walked on the moon in 1969, they personified an almost unimaginable feat—the incredibly complex task of sending humans safely to another celestial body. This extraordinary odyssey, which grew from the rivalry between the United States and the Soviet Union during the Cold War, was galvanized by the Sputnik launch in 1957. To mark the fiftieth anniversary of Sputnik, National Geographic recaptures this gripping moment in the human experience with a lively and compelling new account. Written by Smithsonian curator Von Hardesty and researcher Gene Eisman, *Epic Rivalry* tells the story from both the American and the Russian points of view, and shows how each space-faring nation played a vital role in stimulating the work of the other. Scores of rare, unpublished, and powerful photographs recall the urgency and technical creativity of both nations' efforts. The authors recreate in vivid detail the "parallel universes" of the two space exploration programs, with visionaries Wernher von Braun and Sergei Korolev and political leaders John F. Kennedy and Nikita Khrushchev at the epicenters. The conflict between countries, and the tense drama of their independent progress, unfolds in vivid prose. Approaching its subject from a uniquely balanced perspective, this important new narrative chronicles the epic race to the moon and back as it has never been told before—and captures the interest of casual browsers and science, space, and history enthusiasts alike.

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