

and unwise irrigation practices, and the pouring of industrial pollutants into the air of Russian cities at levels far exceeding permissible norms. This book is a translation of a Soviet collection of articles, primarily by geographers, pertaining to the use of water resources, climate, vegetation, agricultural land, and fish and game supplies. It provides an illuminating overview of Soviet resource problems and potentials with particularly informative sections on agricultural land, forestry, and fishing.

The book is marred by several shortcomings. Since the appearance of the Russian original in 1963, major environmental events have occurred, such as the comprehensive codification of water use and the significant debate over the industrial pollution of Lake Baikal. Another drawback is the failure to cover mineral resources because of the conflicting jurisdictions of research institutes. Combined with the fragmented agencies of planning and administration, this divided authority typifies a fundamental problem of Soviet resource use. The book makes virtually no effort to treat interrelated problems in a broad, cost-benefit sense or in relation to national economic priorities. These oversights, in turn, seem to stem from the inadequate coordination of the individual studies, particularly the failure of the Russian editors to outline common problems and trace possible avenues of resolution.

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RUSSIANS IN SPACE. By *Evgeny Riabchikov*. Edited by *Colonel General Nikolai P. Kamanin*. Translated by *Guy Daniels*. Prepared by the Novosti Press Agency Publishing House, Moscow. Garden City: Doubleday, 1971. v, 300 pp. \$10.00.

Quite a few months ago a high Doubleday official told me in triumph, yet with some amusement too, that he had just returned from Moscow after negotiating and signing a contract with Soviet space exploration officials and the Novosti Press Agency for a book to be done by a Soviet author that would "for the first time give the real facts and photos of the Soviet space effort, none published before." The amusement in his account was about the glorious red carpet Moscow had spread for him: banquets with all the generals and officials of the space program, also with cosmonauts and rocket scientists and engineers, vodka and speeches flowing all through his stay.

Well, the book is done and out now. The mountainous reception and publicity gave birth to a truly mousy result. Riabchikov, a rather well-known writer on Soviet flying and rocketry, spins a typical Sunday supplement story: coy, cloying, disjointed, full of heroics and platitudes thudding flat. Chronologically the book opens with Gagarin's flight of 1961 and ends with the Dobrovolsky-Patsaev-Volkov tragedy of 1971. And in between we find flashbacks to Kibalchich of 1881 and to Tsiolkovsky up to his death in 1935, also the fullest biography yet to appear (even though poorly organized) of that great rocketry genius Sergei Korolev—but with not a word on his six years in Stalinist prisons!

Also, typically, not a single mention is made of Khrushchev's role in, and ebullience about, the Soviet rocketry of 1957–64, but Brezhnev is reverently quoted and a 1963 photograph of him (with three cosmonauts) is included. A few nuggets of valuable technical data are scattered throughout the text, but you have to hunt for them, and there is no index to help. The book is verbose, yet a sense of the

incomplete hangs over it, particularly over its human-interest tidbits. We are told, tantalizingly, that Titov was named Gherman because his father loved Pushkin and wished to honor the luckless hero of "The Queen of Spades," but just what Titov Sr. saw in that gambler is not explained. We learn that during the Second World War the Nazis took Gagarin's older brother and sister away, as *Ostarbeiter*, but the pair's eventual fate is not given.

There are also minor errors, such as "Petrograd in 1893" (p. 98); "Sasyadko" (p. 114) must be Zasyadko. Still, most of the 153 photographs are indeed a revelation. They are worth at least half the price of this curious volume.

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THE MEDVEDEV PAPERS: "FRUITFUL MEETINGS BETWEEN SCIENTISTS OF THE WORLD" [and] "SECRECY OF CORRESPONDENCE IS GUARANTEED BY LAW." By *Zhores A. Medvedev*. Translated by *Vera Rich*. Foreword by *John Ziman*. London: Macmillan. New York: St. Martin's Press, 1971. xiv, 471 pp. \$11.95.

In August 1948 the agrobiologist Trofim D. Lysenko, with the personal approval of Stalin, publicly rejected the classical tenets of the science of genetics and forced it into the ideological mold of Marxism. Actions taken against dissenting scientists included the imprisonment of the world-famous geneticist Nikolai Timofeev-Resovskiy, under the ludicrous charge of Mendelianism. Biochemist Zhores Medvedev was one of the first to articulate the discontent of the scientific community. In 1962 his manuscript (later published in the United States as *The Rise and Fall of T. D. Lysenko*) began to circulate in *samizdat*, and indeed by 1965 Lysenko's power had dwindled. Medvedev's manuscript helped the Soviet authorities to dethrone Lysenko, but Medvedev also lost his position (as he relates in the *Papers*). His punishment for publishing the *Papers* was two weeks of "psychiatric detention" in May 1970 (described by Medvedev and his brother Roy in *A Question of Madness*, 1971).

Many important topics are examined by Medvedev in the *Papers*: the internal and external passport system in the Soviet Union, the trials of publishing, the process of election to the Academy of Sciences, and the post office system (including suggestions on how to avoid filling out the notorious postal form 103A). Readers will be intrigued by Medvedev's account of the appointment of biochemist N. A. Reshetovskaia to the Obninsk research laboratory. The admission procedure consisted of an examination and approval by an academic council. Though she met all requirements, there was still one drawback: Reshetovskaia was Solzhenitsyn's wife. The party wanted them in far-off Riazan and achieved this goal by Byzantine manipulations.

Fascinating as these insights are, the author's main emphasis is on two other themes—the obstacles to international travel, and the censorship of mail. His book is divided into two sections based on these themes. In the first section the many individual stories of bureaucratic harassment and police obstruction to travel are climaxed by Medvedev's ironic description of himself peeling potatoes at home while his lectures are being read at a London scientific meeting. He caps this with a quotation he noticed four days later in *Pravda*: "Recent months have been ex-