

physicists and chemists in the Soviet Academy, including the Academy's current president. This makes even more intriguing Adams's conclusion that many scientists who worked quietly to keep genetics alive often have opposed more open political oppositionists such as Academician Sakharov.

While many of the papers are largely ahistorical and systemic in their analytical approach, one can only agree with Mark Adams's statement that the study of history "permits us to draw on many sources of data and information which allow us to formulate a more complex picture than would be possible if we studied only the current situation or very recent events." Historical studies of Soviet science and technology significantly enrich the field, and more historical knowledge would have strengthened this volume, precluding such naïve statements as the following by the editors: "Anti-intellectualism was not part of the Russian people nor is it of Soviet society."

Among the papers on Soviet technology and technology transfer from the West, Philip Hanson's article and the contribution by Donald W. Green and Herbert S. Levine stand out. They address the question concerning the extent to which the transfer of technology from the West helps the USSR improve its economic position. Their answers remain uncertain and are indicative of the difficulties of assessing the incomplete and often ambiguous data available. While only a small proportion of overall Soviet growth during 1968–73 (some 5 percent, according to Green and Levine) can be attributed to imported technology, nonetheless, in certain key areas, such as the chemical industry, the impact has been considerable. While the Soviets remain inefficient in diffusing foreign technology by comparison with Western nations and Japan, imported technology appears to raise Soviet efficiency in selected areas by comparison with past performance. Green and Levine's article indicates that Soviet investment in Western technology returns three to four times as much as the same investment made in domestic technology. If so, this helps explain one of the primary economic motives behind the Soviet interest in *détente*.

Overall, participants at the workshop reached a consensus that Soviet leaders are concerned about the level of their technology but are politically unprepared to reform the economy in major ways. They have instead turned to technology transfer as the strategic solution to their problems. The evidence presented in the case studies suggests that, as a solution to Soviet economic problems, the strategy of borrowing foreign technology is not working. At most, it appears to be a band-aid, and a small one at that, because of systemic resistance and restrictions on Soviet ability to purchase technology abroad. According to the contributors to this volume, the present Soviet leadership is therefore likely to bequeath to its successors major unsolved problems in the areas of science and technology, with serious implications for the future course of Soviet development.

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SOVIET SCIENCE. By *Zhores A. Medvedev*. New York and Toronto: W. W. Norton and George J. McLeod Limited, 1978. xii, 262 pp. + 12 pp. photographs. \$10.95.

Zhores Medvedev's book will be remembered as an interpretative, historical account of the changing conditions in Soviet science since the Bolshevik Revolution. It is not an institutional analysis, focusing instead on individual scientists affected by the needs and demands of a political system more concerned with its own security than with the advancement of knowledge. The author characterizes the development of Soviet science as uneven, contradictory, and often misdirected, because of incompetent political leaders and other factors outside the scientific community. This view prevails throughout the book and results in an emphasis on the negative aspects of Soviet

science policies. Especially critical of Khrushchev, Medvedev suggests that, in each period of Soviet history, political constraints damaged the quality of scientific research. Yet, he concludes on an optimistic note, firm in his belief that Soviet scientists will continue to work in the best traditions of Russian and world science.

The book is a study of the impact of national and international politics on the Soviet scientific community. But it is also an appeal by the author to protect science from further abuse. Medvedev's aim is to publicize the plight of Soviet scientists, whom he shows to be remarkably flexible, courageous, and tenacious, despite all the obstacles placed before them. While it is easy to agree with his plea for the integrity of science and for the importance of open communication in the international scientific community, it is difficult to accept his idealized view of science as "the most rational force in today's world" (p. 217). The nexus of politics and science is far more complex than that which is portrayed in *Soviet Science*. Heroes and villains are not so easily cast.

Not intended as a detailed history of Soviet scientific development, Medvedev's narrative style and commentary will appeal to a wide audience. It is informative and well written. Nonetheless, the lack of extensive documentation will be missed by the scholarly reader.

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PRINTSIPY I TENDENTSII RAZVITIIA PREDSTAVITEL'NOGO SO-STAVA MESTNYKH SOVETOV (SOTSIOLOGICHESKOE ISSLEDO-VANIE). By *B. K. Alekseev* and *M. N. Perfil'ev*. Leningrad: Lenizdat, 1976. 304 pp. 90 kopecks.

This careful sociological investigation by two Soviet scholars presents one hundred forty-two pages of statistical information, much of it new, about deputies to local soviets in the USSR. Some data were drawn from census reports, deputy registration forms, and biennial election figures, but most of the information comes from questionnaires distributed in 1969 and 1971 to the five hundred deputies of the Vasileostrovskii and Moskovskii district soviets of Leningrad. The one hundred fifteen tables contain information about each deputy's social position, social origin, party or Komsomol membership, length of party service, length of employment at current job, education, age, sex, salary, amount of free time, and attitudes toward labor. They also provide answers to such questions as how much time the deputy spends working for the soviet; how he or she spends "leisure" hours, including time devoted to household chores and child care; how the deputy participates in the work of the soviet (as member or chairman of an executive committee, standing commission, or deputy group); and what kinds of difficulties and satisfactions deputy work entails.

A major purpose of the study is an examination of these data for evidence of "basic tendencies" in the historical development of Soviet society over a fifty-year period. In the recent period, the characteristics of deputies are shown to reflect the present stage of a fully developed socialist society. The investigation is clearly intended to aid the party in shaping the composition of future soviets according to Lenin's precepts.

Important questions are asked, such as those concerning adequacy of preparation and capabilities of deputies to carry out their assignments. Yet the authors stop short of investigation sufficient to find real answers to such questions as how the deputy characterizes his relations with his executive committee and its departments, or why deputies do not fully exploit the statutory powers given them. Nevertheless, the book is a notable advance in the field of Soviet sociology. Western scholars of Soviet local government will find it of great interest.

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