There is no bibliography but there are several charts, maps, and tables and an index (which does not include the names of authors referred to in the notes).

PAUL HOLLANDER University of Massachusetts, Amherst

## PROBLEMY IZMERENIIA ZATRAT I REZUL'TATOV PRI OPTI-MAL'NOM PLANIROVANII. By V. V. Novoshilov. 2nd edition. Moscow: "Nauka," 1972. 434 pp. 1.87 rubles.

Victor Valentinovich Novozhilov was one of the most important Soviet economists. His great achievements were to be creative in the Soviet context, to survive as a lonely but undaunted prophet of rational thinking in economic matters all through the Stalinist period, and finally to make a major contribution to the revival of economics in the Soviet Union in the 1960s. Along with Nemchinov and Kantorovich, he succeeded in developing and winning acceptance for some simple but fundamental economic ideas that became the basis for the idea of optimal planning. Novozhilov's distinctive contribution was the idea of opportunity cost, developed and elaborated in contexts where it could not easily be rejected, and the extension of its implications from the field of investment planning, where he first applied it, to more general problems such as pricing and economic organization. This book is an elaboration of the basic ideas, and a grand summing up of their significance for the effective operation of a socialist economy. As part of that job he also refutes his critics. This second edition differs from the first (published in 1967) by the inclusion of a commentary by N. Ia. Petrakov on Novozhilov's life and contribution, and a few short pieces from the last years before his death in 1970, mostly having to do with the application of these ideas to the optimal management of the economy. Petrakov remarks that this was the first book that Novozhilov succeeded in publishing, and indeed that until the revolution in economic thought in the sixties, though he was an effective and prolific writer, he always had to publish in offbeat journals. To one familiar with his ideas, this book is rather overlong and repetitious. Its main ideas about what determines the value of a resource-how opportunity costs are measured, how prices ought to be set, and so on-are so basic to the thinking of a bourgeois economist as to seem almost banal, and hardly worth elaborating here. They are interesting reading, though, partly for their refreshing clarity against the usual Soviet discussion, and for the ingenuity he puts into making his points. The book appears to have originated basically from his lectures-there are repetitions to hammer home essential points, summaries to remind one where he has been, blackboard examples, and so on. Petrakov says that Novozhilov used his lectures (he taught at a succession of institutes in Leningrad) to develop and convey new ideas, and one wonders if there was not a considerable body of economists who had been exposed to them before they were officially accepted.

Since the real purpose of the book is to present his views in a way that they can be accepted in the Soviet context and can influence the planning system, Novozhilov is much concerned to show how they are consistent with Marxism. In addition to replying to his domestic critics, he is much concerned to refute the contentions of Gregory Grossman and the reviewer that it is difficult to square his views on value with the labor theory of value. He does so by an ingenious argument that under socialism labor is the "subject" of economic decision-making, whereas under capitalism it is the "object" thereof.

## Reviews

This argument is not really important (as he says, sooner or later the truth will prevail), but it prompts reflections on the influence of Marxian economics on Novozhilov's thinking. On the basis of the book my interpretation would be that Marxism was for him less an inspiration than an environment within which he had to maneuver. It provided the jargon and the constraints, not the inspiration. This conclusion is reinforced in the one unpublished piece included in the book-a mere three-page sketch of an idea, but most revealing. The problem that concerns him is a theory of growth that will encompass system change, which is certainly a realistic concern for anyone who wants to reform the Soviet economic system. He knows that for a Marxist, system changes only come when "productive forces" outgrow the "production relations," and he proposes to connect this process to a theory of economic growth through the variable of "information processing capacity." The capacity required can be made a function of the growth of the productive forces, while any given system of production relationships has a definite upper limit. When the growth of the productive forces leads to a contradiction here, there will be a change. Novozhilov's artistic talents found expression in both painting and music. One suspects that his intellectual creativity was protean enough to find expression in the Marxian framework or any other.

> ROBERT CAMPBELL Indiana University

## THE SPOILS OF PROGRESS: ENVIRONMENTAL POLLUTION IN THE SOVIET UNION. By *Marshall I. Goldman*. Cambridge and London: The MIT Press, 1972. xi, 372 pp. \$7.95.

Since environmental problems are international in the long run, their solution will depend on international cooperation in developing mutually satisfactory philosophies and methods of control. It is necessary to look to other areas of the world not only to understand the global dimensions of environmental disruption but also to gain a reasonable perspective on the nature of environmental problems at home. In theory, the experience of the Soviet Union should be particularly instructive. As Professor Goldman notes, environmental disruption is commonly regarded as a natural (if not exclusive) by-product of the capitalist system. If true, it would seem to follow that in a socialist or Communist state environmental disruption would be substantially reduced. Soviet writers, moreover, have traditionally maintained that public ownership of resources combined with unified economic planning provides their system with indisputable advantages over other systems in the design and execution of environmental policy.

Goldman has examined these propositions in the hope that the Soviet system would indeed offer guidelines and experiences that might be useful for dealing with environmental disruption in other countries. He finds, however, that the Soviet Union has little to offer, either in theory or practice, that might lead to an improvement of environmental quality elsewhere. Based on an extensive survey of Russian materials, Goldman concludes that environmental disruption has been as extensive in the Soviet Union as anywhere. But in reaching this not too surprising conclusion, Goldman has produced an eminently readable volume which will be of interest to the area specialist as well as to those more generally concerned with environmental problems and policy.

The study is introduced with a review of theoretical and legal supports for