

on the other hand they do not feel that Soviet society shows signs of cleavage on a party and nonparty line. Rather, they see the party man gaining more respect as there comes to be less need to fear him. And they argue that one of the strengths of totalitarianism is that it co-opts into its ranks precisely those individuals who under other circumstances, would be "natural leaders."

Nor do the authors feel that nationalism or separatism is now at white heat among the nationality groups in the U.S.S.R. Instead, they see the peasant's values, centered on nationality, family, and religion, being replaced by those of the industrial society. To be sure, this too has its built-in tensions. For one thing, in order to give incentive, the regime has encouraged a cult of success, an upward mobility, a thirst for more education than the present system can provide. Ultimately the regime must come to grips with this by making manual labor more rewarding, both materially and psychologically. There has been bitter discontent with some of the conditions of Soviet industry—the enforced tempo of work, the terrible squeeze of work norms and piece rates, the harshness of labor regulations, and political interference with industry. But here the evidence is that conditions have changed notably for the better, and that workers are becoming better adjusted and satisfied.

In fact, throughout the data presented in this volume is the recurring theme of improving adjustment. Examining their data by age groups, Inkeles and Bauer find that the young people consistently react *more affirmatively* than their elders to what they consider to be the positive aspects of the system and *less violently* against the negative aspects. Each successive generation seems to take the system more for granted. Examining changing values in child care, the authors find that the traditional values of religion, respect for custom, and love of heritage are apparently being replaced by more secular values—adjustment, security, and so forth—which are more likely to produce a tractable citizen.

How might a fundamental change come about in the Soviet system? The authors suggest three ways. It might result from an internal conflict over the succession; from a break-up of the Soviet satellite empire; or from the gradual industrial maturing of the country. It is pointed out that either of

the first two possibilities would be more likely to lead toward greater totalitarianism than toward greater democracy. The third type of change is one the authors feel must be considered very seriously. Indeed, they cite some of the changes already made in that direction since Stalin's death. But they point out that a change away from Stalinism is not necessarily a change *toward* democracy. The new Soviet society forged by Khrushchev, they say, "is perhaps less totalitarian, less absolutist, even less dictatorial. It is no less autocratic and certainly not *more* democratic, in the sense of acknowledging the supremacy of law and of individual rights. But such a society is more, not less, a challenge to the free world." This society represents a greater challenge because the leaders have succeeded in making adjustive changes without sacrificing the basic features or the intent of the system, and have gained greater efficiency, broader support from the citizenry, and a better profile before the world.

To a reader who feels that "everything will come out all right," this will be small encouragement. To a person (if one still exists) who believes that the Soviet Union is trembling on the brink of revolution, this book will not be a pleasant experience. But for anyone who wants a mature and perceptive examination, albeit from a distance, of the social psychology of the Soviet citizen, the Inkeles-Bauer book is recommended reading.

WILBUR SCHRAMM

*Center for Advanced Study in the Behavioral Sciences,
Stanford, California*

Communist Economic Strategy: The Rise of Mainland China. A. Doak Barnett. National Planning Association, Washington, D.C., 1959. 106 pp. \$2.50.

In 1956 the National Planning Association's International Committee organized a project to examine the economics of competitive coexistence, and this volume is the fourth in a series of country and area studies. The author, born and brought up in China, has served in the Far East as news correspondent, foreign service officer, and associate of the American Universities' field staff in Hong Kong.

While developing and documenting

his central thesis that Communist China has already become an important participant in the economic competition between Communist and Western blocs, A. Doak Barnett takes full cognizance of the many difficulties inherent in the use of Chinese Communist statistics and in the assessment of Chinese Communist progress reports. In fact, although the book went to press several months prior to the recent down-grading by the Peking Government of their own previous claims, there is no evidence that these rectifications will in any sense damage Barnett's arguments. What emerges, rather, is a sober justification for his presentation of a China which, quite apart from its extravagant claims, is nevertheless making remarkable progress in a crash effort to industrialize itself.

Generally, Barnett's findings fall far short of being a reassurance for the West or for underdeveloped countries which, like India, are seeking to modernize through democratic rather than totalitarian means. Peking's policies have involved purges, suppressions of individual freedom, revolutionary upheaval, and economic hardship. And yet there is no doubt, according to Barnett, that "Peking's first Five Year Plan has put Communist China into the forefront of underdeveloped nations in terms of their rates of over-all growth. Especially startling, perhaps, has been the regime's decision to embark on foreign aid programs of its own to other underdeveloped countries."

If the annual increase in the gross national product during the first Five Year Plan was close to 7 or 8 percent, Barnett maintains, then the rate of growth in China has probably been close to double that of India. Contrary to a widely held assumption, moreover, the Chinese Communists have largely carried the burden of economic development themselves, for concrete assistance from the Soviet Union has been somewhat limited. The implications for further development during the second Five Year Plan, initiated in 1958, are difficult to assess, especially in view of the many over-inflated claims of last year, but the probable outcome, Barnett believes, should not be underestimated.

In conclusion, Barnett argues that Communist China's economic and industrial base will probably continue to grow at a comparatively rapid pace; that the Chinese Communists will con-

tinue to promote trade relations with the free world and particularly with the underdeveloped countries in Asia, the Middle East, and Africa; that Peking's foreign aid programs to countries in the Asian-African area will be expanded in the years immediately ahead; and that the psychological impact of Communist China's economic development will be widely felt throughout the underdeveloped areas of the world.

ROBERT C. NORTH

*Department of Political Science,
Stanford University*

Geochemical Methods of Prospecting and Exploration for Petroleum and Natural Gas. A. A. Kartsev, Z. A. Tabasarskii, M. I. Subbota, and G. A. Mogilevskii. English translation. Paul A. Witherspoon and William D. Romey, Eds. University of California Press, Berkeley, 1959. xxiii + 349 pp. Illus. \$12.50.

The Russian edition of this book was published in 1954 as a text for students and also as a practical guide for petroleum geologists. In addition to the general reviews on the geochemistry of petroleum formations and natural gas, the following exploration techniques are outlined in considerable detail: gas surveys, core-gas surveys, oil and gas logging, bitumen and bitumen-luminescence methods, hydrochemical techniques, water-gas and soil-salt surveys, and microbiological methods. The oxidation-reduction technique and geobotanical prospecting methods are discussed in passing.

The editors of this English translation are to be congratulated for making this work available to those who do not read Russian. The translation is excellent, and the reader is assisted by occasional editorial footnotes.

Fundamentally, geochemical prospecting represents an attempt to obtain, directly or indirectly, criteria for recognizing oil and gas fields. In view of the necessity for basing such criteria upon the geochemistry of petroleum and gas, I was disappointed to find many misstatements, contradictions, and misconceptions in the very first chapter. This shortcoming is balanced, however, by the excellent descriptions of stationary and portable equipment for gas analysis, by a particularly good and objective discussion of bitumens that I recommend to geologists working

with sedimentary deposits, and by an interesting description of microbiological exploration techniques.

The theoretical discussions of a number of techniques leave much to be desired. For example, decreases in redox potentials are attributed to the presence of hydrocarbons, but the fact that hydrocarbons are not ionized and cannot affect these potentials is overlooked.

I cannot help but wonder at the authors' obsession with regard to priority for the discovery, development, and use of many of the techniques described. The following statement illustrates this point: "The Americans unsuccessfully tried to appropriate the development and practical application of the [gas logging] method for themselves, ignoring the indisputable priority of Soviet investigators in this field." Such chauvinistic inserts add nothing to a scientific treatise and might not have been made if the authors had consulted more of the non-Russian literature.

Although there are shortcomings in the theoretical aspects of the book, the authors have carefully evaluated many of the parameters that can influence interpretation of experimental data; in one case 18 such factors are listed. Obviously, however, the ultimate value of these methods depends upon their usefulness in locating oil and gas, theoretical interpretations notwithstanding. In this respect, a number of examples are cited in which microbiological techniques have led to the discovery of oil at a depth of 1000 meters, or in which geochemical anomalies have been confirmed by later drilling. These are impressive results.

IRVING A. BREGER

*U.S. Geological Survey,
Washington, D.C.*

Index of American Palms. Plates. B. E. Dahlgren. Field Museum of Natural History, Botanical Series, volume 14. Chicago Natural History Museum, Chicago, 1959. i + 412 pp. Illus. \$10.

The 412 plates that comprise this volume supplement the *Index of Palms* text published in 1936. The volume includes photographs of types and other historic specimens of palms made under the direction of J. Francis Macbride prior to 1940 at several European her-

baria—Copenhagen, Geneva, Herrenhausen (Hannover), Munich, Paris, and Vienna—and at the Museu Paraense Emilio Goeldi, in Brazil.

This is not a picture album showing photogenic palm trees but a collection of photographs of herbarium specimens, with the palm material pressed and dried, and reproductions of about 50 hitherto unpublished plates by F. M. Liebmann, a Danish student of palms who, a century ago, was professor of botany and director of the botanical garden at Copenhagen.

In general, the quality of the photographs and the offset printing is excellent, and the pictures can be considerably magnified to show the details of plant parts. Unfortunately, in several cases, focusing on the slightly raised plant parts resulted in a loss of sharpness, and the label data were lost. Within the usual limitations imposed when illustrations are substituted for the actual specimens, these photographs will be useful to taxonomists for reference purposes.

The earlier work in the same series, *Index of American Palms* (Publication 355, 1936) is out of print. It included a complete index of American palm genera and species, and lists of data—such as taxonomic literature, vernacular names, and geographic occurrence (prepared by B. E. Dahlgren), and a list of fossil palms (by A. C. Noé).

Dahlgren is now the dean of American palm specialists, and although for more than a decade he has been curator emeritus at the Chicago Museum of Natural History (formerly the Field Museum), he continues his studies in the palm family.

VELVA E. RUDD

*U.S. National Museum,
Smithsonian Institution*

The Amphetamines. Their actions and uses. Chauncey W. Leake. Thomas, Springfield, Ill., 1958. xv + 167 pp. \$4.50.

This book might be called a gem monograph. It is an easily read account of the amphetamines, written for the general reader as well as for the physician. Therapeutic details do not obtrude on the historical and philosophical story, which Leake has written in his fluent style.

After a charming dedication to Gordon Alles, the book describes the three