

one does not have to read between the lines to realize that, as far as inspection is concerned, the problem of biological warfare is vastly different from all others discussed in the book.

A fascinating insight into the production and smuggling of clandestine arms is provided by Lt. Col. Rivlin, an officer in the army of Israel and a man with 20 years' experience in covert operations. His cloak-and-dagger story is worthy of book-length expansion and might even achieve best-seller lists if he accentuated the humorous angles which developed when the Hagana set out to frustrate British control. The Hagana located a transportation center less than 100 yards from the British Headquarters in Tel Aviv; it smuggled illegal cargo by draping it with an overlayer of fresh fertilizer and in one case with rather ripe onions; over-all, it conducted an efficient underground operation with minimal interference.

Sociologist William M. Evan (Columbia) reports on public opinion polls, including some Gallup polls not published heretofore, on attitudes toward inspection and supranationalism. It is discouraging to find the United States lowest (West Germany and Japan are highest) on the list of countries favoring worldwide inspection. On the other hand, 97 percent of those queried from the membership of the Federation of American Scientists favored inspection (3 percent of the FAS must be given hearing tests!) as opposed to 53 percent of the American Legionnaires favoring inspection for disarmament. (No comment.)

Psychiatrist Alberta Szalita completes the team of 18 experts and provides some highly interesting insights into the psychological aspects of questions bearing on man's capability to live in peace. She asks: "Does man possess psychological equipment for disarmament as well as for evasion?" Commenting on governmental decisions, she states: "It is also plausible to assume that some, if not many, of the decisions are prompted by personal needs and the nature of the personality characteristics of some government representatives." This point is well taken, for when decisions are reached in secret the personality traits of the decision-makers may be decisive.

The reports of the three evasion teams are so terse as to discourage further compression. However, they emphasize that "The sooner a disarmament agreement could be achieved between the nations, the simpler the problem of inspection." They recognize that evasion is easier in a totalitarian country. They stress the fact that the Achilles heel of disarmament is the secreting of stores of arms prior to inspection. They note "how vast a distance still separates the world from genuine full disarmament."

This optimistic yet realistic appraisal

of inspection for disarmament does not attempt to deal with political feasibility. Its obvious hope is that disarmament will reduce international tensions and that small steps will lead to big steps. This view will be challenged by those who feel that there can be no mechanical crutch for limping into an era of reduced tension. Arms, they say, are the end products of fear and while more arms increase tension, less arms do not necessarily decrease it in the era of nuclear missiles.

The great merit of this pioneering book is that it penetrates to the core of the disarmament-inspection problem. Columbia University Press manufactured the book in an incredible five weeks in order to bring the book to the public on the heels of the Geneva talks. It is to be hoped that this good timing will give this book the kind of national readership which it so much deserves. It is without doubt the most significant book I have read this year.

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The Kingdom of Jordan. Raphael Patai.

Princeton University Press, Princeton, N.J., 1958. ix + 315 pp. Illus. \$5.

This volume is considerably more important and more widely useful than its simple title would suggest. The real worth of the book is not immediately apparent even in some of the earlier chapters, which, almost in Baedeker fashion, deal with physical environment and supply skeletal outlines of Jordan's history, its contemporary political and economic structure, and its attributes as a Middle Eastern state. Interspersed among these factual recitals, which presumably are intended to serve principally as a context for a detailed treatment of Jordanian society, are enlivening observations on the unifying influence of religion and language, on pan-Arabism, and on the relationship between power-prestige and cultural attitudes. These sociological excursions give advance notice of the fact that the essential contribution of the book, as might be expected from the author's previous writings, consists in a masterly analysis of the human components of Jordan—an analysis that holds good to an almost equal degree for the surrounding Arab countries.

Most of the topics with which the author is mainly concerned—the family, the nomads, villages and towns, religion, health, language, and education—have been discussed by other students of Arab life and Islamic institutions in recent years. Few, however, have shown the depth of perception and understanding of the characteristics peculiar to the sev-

eral elements in the Jordanian population that are displayed here. Patai is nearly at his best in dealing at some length with the changes that have been taking place in nomadic life since World War I. One misses only an evaluation of two of the more potent of the causative factors: the high-power rifle and the motorcar.

The final chapter, on "Values and outlook," is an excellent synthesis of all that has gone before. It makes clear the problems and perplexities of groups at various cultural levels in a predominantly Muslim environment now in transition between customary and traditional values and the contrasting ones of an ever-encroaching modern world. Caught up in this process, the Arab has to form new concepts of freedom, independence, and leisure. In this connection the author explains some of the manifestations—such as the irruption of street mobs—which of late have seriously complicated political processes in Jordan and neighboring countries. Ascribing many of these phenomena to youths recently emancipated from the discipline of the family, he remarks: "They discover that they can support causes by participating in street demonstrations, that theirs is the freedom of the crowd, the independence gained through anonymity, the emotional satisfaction of mob action. This is a truly new experience. . . . Now . . . they feel free to commit irresponsible acts in the name of patriotic fervor and indignation." Here, the author tacitly suggests, is raw material for Communist endeavor. The question of the hour, he concludes, is: "Into what direction will these changes lead the nascent Jordanian nation?"

HALFORD L. HOSKINS

Library of Congress

The Terpenes. vol. V, *The Triterpenes and Their Derivatives*. Hydroxy acids, hydroxy lactones, hydroxyaldehyde acids, hydroxyketo acids, and the stereochemistry of the triterpenes. John Simonsen and W. C. J. Ross. Cambridge University Press, New York, 1957. ix + 662 pp. \$15.50.

This most recent volume in the monumental series on the chemistry of the terpenes is, for the most part, an extension of volume IV, covering the more highly oxygenated triterpene derivatives. The chemistry of the triterpenoid hydroxy acids, lactones, aldehyde acids, and hydroxyketo acids is presented in the classical framework employed in the earlier volumes of the set.

The use of outline formulas is welcome, but here, as in volume IV, the authors have produced distorted and somewhat confusing diagrams through a

disregard for the symmetry of pentagons and hexagons.

One substantial chapter is devoted to a description of the methods, principles, and arguments employed in the assignment of stereochemical configuration to the triterpenes. This chapter should be of general value to those working with natural products of steroid or terpenoid nature, and to all who aim at complete descriptions of the arrangement of atoms of complex molecules in three dimensions. Extensive use of conformational and optical rotatory analysis is made in arriving at the stereochemistry of the triterpenes, and the chapter in question provides many examples of the use of these powerful techniques.

The volume closes with an addendum to volume III of the series covering sesqui- and diterpenes. The hundred-odd pages so employed provide a welcome summary of recent work, including configurational analysis, with the smaller terpene molecules. In view of his outstanding contributions to the stereochemistry and conformational analysis of terpenes and steroids, it seems particularly appropriate that the elegant series of investigations of D. H. R. Barton and his coworkers on caryophyllene receives full treatment here.

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Wind and Solar Energy. Proceedings of the New Delhi Symposium. Arid Zone Research, vol. VII. UNESCO, Paris, 1956. 238 pp. \$8.

This attractive volume of some 240 pages combines articles presented at UNESCO's Arid Zone Research program symposium, held in October 1954 at the National Physical Laboratory of India in New Delhi. Wind and solar energy, both gifts of the skies, are regarded as important potential energy sources in the tropical zone, the home of nearly one-half of the world's population.

The list of experts who presented papers included representatives of many nations, East and West being neatly balanced. The subject of wind machines was aptly summarized by the Danish scientist J. Juul and the German U. Hütter. The broad aspects of solar-energy research were envisioned by Farrington Daniels, the sole participant from the United States. The results of extensive Russian work, presented by V. A. Baum, included an array of solar furnaces, water heaters, and an ice machine. French achievements with very high temperature furnaces give promise of industrial success, according to F. Trombe. Speculations on potential ap-

plications were visualized by the French and Indian group.

The requirements of the people living in the underdeveloped arid zones were stressed repeatedly. Indian and Russian scientists spoke of potential "important social repercussions, in raising the living standards of much of the world's population and reclaiming the desert." The task is a great and noble challenge to mankind.

The symposium, according to the late André Nizery, "would have abundantly justified itself if its only achievement were that of bringing together scientists working on arid zone problems."

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A Comprehensive Dictionary of Psychological and Psychoanalytical Terms. A guide to usage. Horace B. English and Ava C. English. Longmans, Green, New York, 1958. xiv + 594 pp. \$10.75.

A good dictionary must be complete in its coverage, accurate in its definitions, and comfortable to use; it is not required to be interesting. This is as nearly complete in its coverage as one could hope a psychological dictionary to be. In fact, it reminds us of a good many words (*adiadochokinesis*, *traumatophilic diathesis*, *nyctalopia*!) which one had hoped had achieved oblivion. The standard terms are defined with impeccable care and clarity, and terms which have not yet achieved a standard usage are supplied with carefully distinguished alternative meanings. The system of abbreviations, typographical aids, cross references, and so forth, can be easily mastered in a few minutes. As a dictionary this will prove invaluable to all students of psychology and related sciences.

What delights the reader, however, is that it is so much more than a dictionary; it is also interesting and absorbing. English loves the language that bears his name and loves the science that he is trying to rescue from confusion and ambiguity. He reminds us gently that *data* and *phenomena* are not singular; he waxes more than a little sarcastic when he deals with the artificially constricting meanings that have been thrust upon innocent everyday words, as in the case of the "information theory" jargon (not a "theory," he pauses to point out); and when a really confused term comes up, like *behavior*, or *learning*, or *operational*, or *phenomenology*, he is likely to launch into a carefully reasoned disquisition on the subject that is both fascinating and illuminating. One is reminded of experiences with Fowler's *Modern English Usage* when one has turned to the vol-

ume for a single item, only to find an hour later that one has been reading article after article for the sheer enjoyment of it. English may never achieve the eminence of *Fowler*, but he has certainly made a distinguished contribution to the clarification of psychological thinking.

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Asian Perspectives. The bulletin of the Far-Eastern Prehistory Association (American Branch), vol. 1, Nos. 1, 2. Wilhelm Solheim II, Ed. Far-Eastern Prehistory Association (University of Arizona, Tucson), 1957. 208 pp. \$1.

Unpretentious in format, the first official publication of the Far-Eastern Prehistory Association (an offshoot of the Pacific Science Association) has as its avowed purpose the creation of interest in Far-Eastern prehistory. It plans to serve archeologists, physical and cultural anthropologists, historians, Sinologists, art historians, and others. Covering the Eastern Hemisphere east of India, the *Bulletin* deals with 20 regional areas of interest, ranging from broad geographical zones to separate states. Responsibility for each area is delegated to a regional editor. The fact that these areas include nations quite new politically as well as troubled older countries contributes to a state of unrest that is not entirely conducive to unhindered scientific research.

Following each of the regional résumés of recent events in the field is a bibliography of newer publications. Care is taken not to overlap too much with the publications of the Council for Old World Archaeology. This is a worthwhile little bulletin, and I wish it success.

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Introduction to Riemann Surfaces. George Springer. Addison-Wesley, Reading, Mass., 1957. viii + 307 pp. \$9.50.

The theory of Riemann surfaces has its origin in the need to create a suitable domain of definition for a function w of a complex variable z that satisfies a given relation. A preview of some of the difficulties that actually arise can be obtained by considering the simple example $w^2 = z$; a value of z does not determine w uniquely, and if z varies continuously along a simple closed curve in the complex plane, a given root w that varies continuously need not return to its