

phase-solubility analysis, countercurrent distribution, ion-exchange and molecular sieve processes, the determination of water, and enzymes as analytical reagents are included. There are also thorough discussions of instrumental techniques along with partition and adsorption chromatography.

The final chapter, *The Analytical Problem*, deals with sampling, statistical interpretation of data, the analytical literature, and "method of choice." It is a most valuable 20 pages, which could profitably be expanded in future editions. A list of "name" reagents, tests, and methods has also thoughtfully been included.

This excellent textbook is topped off by being extensively referenced, and many laboratory experiments and study problems have been included throughout.

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**Ethnopharmacologic Search for Psychoactive Drugs.** Proceedings of a Symposium, San Francisco, California, January 28-30, 1967. Edited by D. H. EFRON, B. HOLMSTEDT, and N. S. KLINE. Public Health Service Publication No. 1645. Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 1967. xxii + 468 pp. 19 × 26.5 cm. \$4.00.

The lure of faraway places and the often mysterious folklore of botanical drugs have enticed generations of chemists and pharmacologists to study plants and plant products as sources of new medicinal agents. Nowhere has this work been more active than in the field of psychopharmacology, nor has it diminished in intensity in spite of the advent of the jet age, hotel chains, and, alas, the gradual disappearance of innocent exotic travel attractions. The National Institute of Mental Health arranged for a symposium in January 1967, under the chairmanship of Dr. Daniel H. Efron, to survey the history, science, and art of present-day psychoactive drugs. There was an urgency in the proceedings, because many participants felt that a few additional

air strips would put coats and ties on the remaining primitive peoples of this earth and accelerate the disappearance of their superstitions and inherited intuitive folk medicine and religious ceremonies which have given us some of our classical CNS-active agents.

The participants in the symposium ranged from anthropologically inclined ethnologists all the way to psychiatrists, pharmacologists, and organic chemists, and their contributions are colored accordingly. The ethnologists have furnished dozens of full-page photographs of scantily dressed South American Indians blowing snuff into their nostrils, then vomiting (p 330) and dancing in a trance. They also show long series of pictures of snuffing tubes, ceremonial kettles, etc., all very interesting but of only ancillary scientific interest. After disposing of empiricism and magic of Aztec drugs, the symposium turns to the chemistry and pharmacology of *Piper methysticum* (kava), *Myristica fragrans* (nutmeg), snuffs like vilca, epéna, ayahuasca, caapi, and yagé (harmala alkaloids), and *Amanita muscaria* (Fly agaric). Many of these sections are written with great authority and give complete reference lists through 1966. Thus, the use, abuse, organic structural, biochemical, and pharmacological problems of these fascinating natural products have been dealt with in an excellent manner.

What makes this book hard to read is its lack of proofreading and editorship. There are virtually hundreds of misprints; strange word formations of non-English authors have not been corrected, even if they do not exist in Webster. Discussion and introductory sections have not been edited but are presented just as the tape recorders played them back, with stale jokes, and with thousands of unnecessary phrases and words which should have been deleted. The National Institute of Mental Health is to be commended for arranging this symposium, the committee on arrangements is to be congratulated, the contributors are to be thanked, but no such compliments can be given to the editors. The U. S. Government Printing Office deserves praise for making this large and beautifully printed volume available at \$4.00.

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