

Folk Medicine: The Art and the Science. Steiner, Richard P. (ed.). Washington, D.C.: American Chemical Society. 1986. Pp. 223. n.p. (hardcover).

Folk medicines continue to pose fundamental questions for professionals and lay persons alike: Do they "work?" and *How* do they "work?" One approach to such issues, as in this collection of papers, is "to examine the medical practices of non-Western cultures in order to establish a scientific basis for the successes of these remedies" (p. vii). That is to say, apart from any psychotherapeutic aspects of illnesses and healing, the authors here seek to discover biochemical components of the plants (in these instances) found in ethnopharmacopoeias that might be expected to have curative effects on diseases.

The contributors, almost all of whom are biochemists or pharmacologists, represent 9 different countries, and they examine "the medicines of 11 different cultures" (p. vii). This last characterization implies both too much and too little. In all of the 14 papers, only selected examples are discussed (and sometimes only a single species, e.g., *Allium sativum* and *Panax ginseng*), and the "cultures" included range from the specificity of Aztec and Zuni to such generalities as India, Fiji, Papua New Guinea, and China.

Given the publisher and authors, it should not be surprising that most of the papers consist of highly technical analyses of the chemical constituents of the plants examined, despite the editor's claim (p. vii) that they are written in a manner "to satisfy the curiosity of the lay reader with a modest chemistry background." The specialist with a *strong* "chemistry background" may find some new information here regarding particular alkaloids or species, but the rest of us can only conclude—as we suspected before—that some "folk medicines" have a "scientific basis" and some do not, at least when the question is framed in very narrow terms.

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Oriental Materia Medica: A Concise Guide. Hong-yen Hsu, Yuh-pan Chen, Shuenn-Jyi Shen, Chau-shin Hsu, Chien-Chih Chen, and Hsien-Chang Chang. Long Beach, CA: Oriental Healing Arts Institute, 1945 Palo Verde Ave., Suite 208. n.d. Pp. xxx + 933, line drawings. \$59.95.

The Oriental Healing Arts Institute has produced a number of interesting books but none so outstanding as this volume. It is the product of six distinguished scholars, all of whom are pharmaceutical and chemical scientists from Japan and Taiwan.

Most of the entries concern plants, and a total of 768 species and varieties are considered: their technical, English, and Chinese names; origins; essences and flavors; traditional uses; and chemical constituents, pharmacology and dosage are outlined, including the molecular structures of many of the lesser-known chemical constituents.

The book is an encyclopedic compendium of "knowledge accumulated over two millennia" and presents the uses of the plants in traditional medicine as well as the latest available scientific information. The vast amount of material is made easily accessible by the five indices: common names in English; Chinese names in Pin-Yin transliteration; Chinese names in Wade-Giles transliteration; scientific and pharmaceutical names; and Japanese names in Hevon transliteration. There are several additional lists of great help to the reader: references (27 items), register of Pen Tsao literature (75 items), and a glossary of Western names of diseases.

This is a volume the utility of which goes far beyond oriental delimitations. It should be on the shelf of every library dedicated to the ethnopharmacological study of plants. The authors and the Oriental Healing Arts Institute must be congratulated for this superb contribution.

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Isthmian Ethnobotanical Dictionary. Third Ed. Duke, J. A. Jodhpur, India: Scientific Publishers, Ratanada Rd., Box 91. 1986. Pp. xvi + 205, 325 illustrations. U.S. \$60.00; Rs. 400.00.

With this inclusive dictionary, James Duke must enter the hall of ethnobotanical fame.

The need for this kind of book is manifest from the inability of the public to procure the first two editions. The author hopes that "many find it to be what they need to introduce them to the Isthmian Flora, a bewilderingly complex but exceedingly interesting composite of the North and South American floras."

This dictionary has as its basis many trips over many years by this botanist whose "childhood home" was Panama and to which he returns whenever his official duties in the United States Department of Agriculture allow him to do so. The data comprise those that have resulted from Duke's personal ethnobotanical research and those garnered from the literature.

A real dictionary, this production includes the Latin binomials, vernacular names, and uses of hundreds of tropical American plants. There are line drawings of many of the species enumerated. The species are arranged alphabetically by both common and scientific names, thus obviating the need for an index.

The wide public who should find this third and enlarged edition of value includes botanists and ethnobotanists, anthropologists, agronomists, herbalists, phytochemists, pharmacologically-oriented scientists, and others.

This contribution to ethnobotany is highly to be recommended.

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The Rice Economies: Technology and Development in Asian Societies. Bray, Francesca. New York: Basil Blackwell. 1986. Pp. xvii + 254. \$24.95 (hardcover).

Francesca Bray believes that the social and economic history and technological development of Asian societies have been misunderstood by Eurocentric economists and analysts. The result of this ignorance has been the consideration of these societies as "backward," "primitive," and incapable of or unresponsive to improved growth and development through modern technologies. The cause of these misconceptions is cultural- (specifically, economic- and technical-) chauvinism; a model of technological development derived from Euro-American agriculture and capitalistic industrial systems has become *the* model for all such development everywhere.

People and societies who live by growing wet rice are different from the European model, says Bray. She proposes an alternative approach to technology and development, based more on intensification of labor and the specific skills of the producer than on capital investment and mechanical hardware: "I hope to show that societies which depend for their subsistence on wet-rice cultivation have in common a basic dynamic of technical evolution, which differs from the model of progress derived from Western experience, and which imposes very different constraints upon social and economic development" (p. 7). Such a model will focus our attention on specific technologies, presented in an evolutionary framework to overcome the image of Asia as unchanging, and "should provide fresh and perhaps constructive insights into contemporary processes of change in Asia" (p. 7).

Each of the six main chapters of the book examines one or more aspect of this premise—some element in her hypothesis—in exhaustive spatial and temporal perspective, covering all of Monsoon Asia since the invention of wet rice agriculture.

Chapter 1, "The Rice Plant," describes the numerous types and varieties of rice and their economic applications, considers theories of the origins of wet rice agriculture, and includes a fascinating description of the constant processes of selection for desirable strains and traits that are inherent in the intensive handwork of rice production; something as simple as discarding weak or diseased seedlings during transplanting alters and directs the genetic pool of the future seed crop.

"Paths of Technical Development" (Chapter 2) is divided about equally between the building of wet rice fields and methods for raising their yields. In both cases Bray stresses that time, labor, and skill are as important as any mechanical or technological inputs. Machines and chemicals alone do not improve production, and may actually hinder it unless part of a total, integrated package of change.

The third chapter, "Water Control," is the longest and most dense. While acknowledging that great theoretical controversy rages around this topic, Bray skirts the fray in favor of providing a technical classification of the types of irrigation systems and their hydrological characteristics, and far too much about their historical and geographic distributions. Throughout she emphasizes that the irrigation system is the prime determinant of a field's worth and key to its improvement.

In the last three chapters, the topics do not align so neatly with their headings. Only the second half of "Rice and the Wider Economy" (Chapter 4) deals with other crops, other income sources for farmers, and the problems of monoculture. The first half of this chapter contains the author's most elaborate statement of her distinction—crucial to her thesis—between agricultural systems that are labor-intensive, using lots of people on very little land, and mechanized farming of vast areas with few personnel. Being "people-using" rather than "capital-using" is at the core of her argument regarding the nature of Asian development. This discussion continues in Chapter 5, "Development," where Bray presents her ideas concerning capital and productivity in rice production.

In her final chapter, "Peasant, Landlord, and State," the author is able to marshal all her preceding arguments into a concentrated and compelling defense of the concept of the individual family farm as the most efficient and economically "rational" mode of wet rice farming. Even when the farmers themselves do not own their own land they are better off than their counterparts in dry farming societies, Bray feels; neither absentee landlord nor specialized collective can ignore or maltreat the specialized skills of the labor-intensive wet rice producers. Some ills of exploitative tenancy and landlessness occur, she admits, though most of these she ascribes to outside causes (Western colonialism, taxes in cash rather than in crops, etc.). "Landlessness" under her thesis requires a new definition, based not on lack of ownership but lack of usufruct. Recognizing that one of the big problems in increasing agricultural yields in wet rice areas is that the fields are usually too small for "economies of scale," she investigates several ways to increase field size (group farming, collectives), but rejects them in favor of the individual family farm as being socially and economically the most "rational" use of the land and its people.

This book has some serious problems. The most frequent, pervasive, and troubling is that of detail—there is always far too much or far too little. This stems from the fact that this book is basically a journal article written by an encyclopedist. Bray obviously has vast knowledge of rice agriculture and she can't help using it even when it is unproductive or counterproductive to do so. There are too many more examples from too many places and too many eras than are necessary to illustrate/demonstrate each theoretical point, yet in no case are we told as much about *that* example as we should know to fully appreciate its impact. (The analysis of ancient Angkor in Chapter 3, and mention of the Demas cf. Bimas development schemes in Indonesia in Chapter 5 are two major instances of this.) To use the analogy of wet rice planting, Francesca Bray tends to "broadcast" her seeds of information when she should be intensively nurturing a small number of perfectly chosen examples.

From this follows the question: to whom is this book addressed and for what purpose? It seems to be directed toward—and is certainly of great relevance to—technicians and bureaucrats of the international development agencies: I.M.F., World Bank, and the like. They seem most likely to be the "Eurocentric" guilty parties who launched her premise. They also seem least likely to read this particular book, primarily because it overwhelms with its detail rather than enlightening the reader with efficient, tightly-written, and skillfully-crafted illustrations. As an Asian scholar, I personally will use this book mainly as an index/annotated bibliography to find specific, detailed, encyclopedic examples of rice agriculture, including studies by Bray herself, as I need them in my own research. For ethnoscientists who want a book that tells not only *how* rice is grown, but what it *means* in the minds of those who grow it, try Lucian Hanks's *Rice and Man* (Chicago: Aldine, 1972) instead.

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LITERATURE CITED (continued)

- TIPPETT, V.A. and W.H. MARQUARDT. 1984. The Gregg Shoals and Clyde Gulley sites: Archaeological and geological investigations at two piedmont sites on the Savannah River. Russell Papers. Archaeological Services Branch, National Park Service, Atlanta.
- WILLIAMS, S. (ed.). 1968. The Waring papers: The collected works on Antonio J. Waring. Papers of the Peabody Museum, Vol. 58, Cambridge.
- WING, E.S. and A. BROWN. 1979. Paleo-nutrition: Method and theory in prehistoric foodways. Academic Press, New York.

Alkaloids: Chemical and Biological Perspectives. Volume 5. Pelletier, S. William (ed.). New York: John Wiley & Sons (A Wiley-Interscience Publication). 1987. Pp. xiii + 714. \$100.00.

Phytochemists are already familiar with Pelletier's earlier contributions and their high academic and practical value. This fifth volume in the series continues the high standard that we have found in the past. Dedicated to the late Sir Robert Robinson, the book is a collection of five chapters consisting of timely surveys of several topics in alkaloid studies by 10 experts from four countries:

1) The Chemistry and Biochemistry of Simple Indolizidine and Related Polyhydroxy Alkaloids and Related Alkaloids, by Elbein and Molyneaux; 2) Structure and Synthesis of Phenanthroindolizidine Alkaloids and Related Compounds, by Gellert; 3) Aporphinoid Alkaloids of the Annonaceae, by Cave, Leboeuf, and Waterman; 4) Thalictum Alkaloids: Chemistry and Pharmacology, by Schiff; and 5) Synthesis of Cephalotaxine Alkaloids, by Hudlicky, Kwart, and Reed.

Each chapter has a comprehensive list of references. There are also two indices: a detailed subject index of 17 pages and an organism index (mostly of plants) of 6 pages.

This publication will be of interest to specialists because of its timeliness, the authentic material presented, and the roster of experts who have contributed to it.

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The First Resource: Wild Species in the North American Economy. Prescott-Allen, C. and R. Prescott-Allen. New Haven: Yale University Press. Pp. xv + 529, 33 figs., 128 tables. \$62.00.

There has never before been a treatment published that is so full of statistical material on what has generally been considered a flora that has given little to the benefit of human affairs. This work is so thoroughly detailed and widely-inclusive that it is not possible to review here all of the statistical data that support the major premises of the monograph.

Sponsored by the World Wildlife Foundation, it discusses the many aspects of the use of the North American floras from the point of view of "wild" plants that enter or can enter into the economy of the region. While several minor treatments of this general aspect of economic botany have appeared, I know of no other volume that packs so much convincing statistical information into one contribution.

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The book is divided into 12 sections: 1) Wildlife as a Resource; 2) Logging; 3) Fishing; 4) Trapping and Collecting; 5) Medicine; 6) Food and Industrial Products; 7) New Domesticates; 8) Wild Genetic Resources; 9) Pollination and Pest Control; 10) Recreational Fishing, Hunting and Nonconsumptive Wildlife Use; 11) Toward a Biogeography of Wildlife Use; and 12) Conclusion. There are several valuable appendices, notes, references, and a very adequate index.

The First Resource will be a valued addition for any student, teacher, researcher, or reference personnel in North America. It is a masterful treatment of a neglected topic.

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