

en at the bottom of each entry. A more cosmopolitan selection of medicinal plants is included in an easy-to-use table format in the back of the book. For each plant, the tables include species, family, and common names; plant origin; plant parts used; active ingredients; medical system of origin; and the main medicinal or other economic uses of the plant.

The pharmacognosy-minded will enjoy the "Overview of Secondary Metabolites and Their Effects," written by Michael Wink. Wink is director of the Institute for Pharmaceutical Biology and is Professor of Pharmaceutical Biology at the University of Heidelberg, Germany, and he writes this section in a clear and approachable manner.

Van Wyk's influence is seen in the sheer attractiveness of the book. Van Wyk has written several guides to medicinal plants in South Africa (van Wyk 1997, 2000; van Wyk et al. 2003) and is known for producing lovely, user-friendly books. *Poisonous Plants of South Africa* (van Wyk et al. 2003) was one of three titles singled out for honorable mention by the jury of the 2003 Noma Award for Publishing in Africa. The photographs in this book, mostly taken by the authors, are truly beautiful and useful. I particularly like the way the authors illustrate not only the aerial portions of the plant (with fruit and inflorescence) but also the commercial product (dried *Lycium chinense* fruit, *Nelumbo nucifera* or sacred lotus rhizomes and dried leaves, sandalwood, and the gum of *Acacia karroo* or cape gum.)

The overall organization of the book is very good, with high quality paper and printing, clear and easy text, and good editing. I was very pleased by the quality of the index and glossary. Overall, the book is very user-friendly, concise, and informative. *Medicinal Plants of the World* is a quick, authoritative reference on medicinal plants, and I definitely recommend it to anyone who needs a reference on economically important plants or herbal medicine.

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Dangerous Harvest: Drug Plants and the Transformation of Indigenous Landscapes. Michael K. Steinberg, Joseph J. Hobbs, and Kent Matheson (eds). 2004. Oxford University Press, New York. Pp. viii + 326, maps, illustrations, index. \$74.00 (cloth) ISBN 0-19-514319-1; \$29.95 (paper) ISBN 0-19-514320-5.

This collection assembles a wide-ranging series of papers on the production of

psychoactive plants and the drugs made from them. The book has appeared at a time when subaltern studies and political ecology have shifted the debate about marijuana, cocaine, opium, and heroin away from international flows, interdiction, and consumers to native cultivators and how these folk have worked out patterns of resistance to the impositions of national, colonial, or foreign authorities.

Kent Matheson's prolegomenon covers the multiple definitions of indigenous peoples and their patterns of use of psychoactive substances, and he introduces the notion of "indigenous moral geographies." In a chapter three times longer than any other, Alfred McCoy reaches beyond that indigenous framework to offer a hard-hitting assessment of the dark hand of the C.I.A. in the illegal drug business. Other chapters discuss with greater specificity culture or place. Three of the four essays about Asia cluster on opium. Joseph Westermeyer lucidly discusses poppy cultivation, opium economics, and opium addiction in Laos. Nigel Allan follows that with a more diffuse, but also more contextualized, study of opium in Afghanistan and Pakistan. Zhou Yongping analyzes the historic opposition of minority people, especially the Erlunchun in Manchuria and the Yi in Sichuan, to Chinese government control. James Mills' chapter deals with nineteenth-century *Cannabis* cultivation in northeast India from which the British colonial government extracted taxes and against which local people manifested opposition. The one essay on the Pacific Islands, authored by Mark Merlin and William Raynor, focuses on kava, a psychoactive plant in the Piperaceae. The only substance described in the volume that is not under any legal control, kava cultivation requires forest removal, making it more of a conservation issue than an international drug concern.

The five essays on the Western Hemisphere include three on Latin America. Kenneth Young presents an overview of coca cultivation in Peru, especially as it has affected loss of biodiversity and increase in stream pollution. He makes the relevant point that isolated areas would, on the surface, be the zones of choice for illegal coca cultivation, but that, in fact, processing the leaf into *pasta* requires water or highway accessibility in order to bring in the necessary chemicals and lime. Harry Sanabria's chapter on coca and power in Bolivia focuses mainly on resistance to U.S. attempts to suppress its cultivation in the tropical *chapare* region. Not discussed is the violent outbreak in October 2003 that shuffled the political deck in Bolivia and has thrown into doubt Sanabria's prediction that illegal coca cultivation will disappear from the Chapare region. U.S. anti-drug measures were also behind the fall of marijuana cultivation in one community of the Mayan-speaking area in southern Belize described by Michael Steinberg.

Clarissa Kimber and Darrel McDonald provide engrossing information on peyote cactus gathering in south Texas, where it has become a legal trade item for ceremonial use among American Indians. Eric Perramond lays out for northwestern Mexico the geographical specifics of marijuana and opium poppy production, transshipment points, and main regional cartels. Joseph Hobbs gallantly pulls together the diverse strands from these individual studies by commenting on the manifold paradoxes of drug use, the lack of any real correlation between indigenous groups and drugs, the questions of "why users use, growers grow, and traffickers traffic," the idea of drug landscapes, and the sticky topic of state-defined illicitness.

I wish to make three kinds of comments—newness, scale, and rhetoric—about

this book. On a scale of one to ten, its originality ranks a 3.5. Three pieces in particular do provide fresh empirical data not found elsewhere in the published literature (Steinberg, Kimber/McDonald, and Perramond). Other chapters, however, most notably those by McCoy, Westermeyer, and Sanabria, contain information the same authors have earlier published elsewhere. Sanabria even borrows a map from a prior publication that leaves the reader perplexed as to its relevance for this essay. Both Mills and Zhou "recycle" paragraphs from their previous books for use in their chapters. It is worth pondering how careerist pressures that academic authors largely place on themselves make it irresistible to add yet another publication, *déjà vu*, to an already tumid curriculum vitae. Redundancy is regrettable, but by no means does it overshadow the overall contribution of the volume to understanding the contexts of drug plant cultivation by small growers.

Most chapters deal at a rather high level of generalization with both the plants and people, and this does little to illuminate the connections among cultivation, processing, and trade. Emphasis on the aggregate in this book probably reflects the dangers of field research on the subject of illicit drugs. In-depth informant cooperation cannot be expected, and the real or imagined threat to an inquisitive field-worker's physical safety is a constant concern. Practical difficulties may help to explain why the moral dimension raised in Mathewson's synoptic remarks found no echo in the field-based essays. For it is not just how indigenous or peasant people cultivate, process, and trade those drug products, but what they think about what they are doing that could open new horizons in the moral discourses that might contest the prevailing anti-drug rhetoric from the industrial countries. Such information can only come by getting the full confidence of informants.

Except for McCoy's withering critique, the so-called "war on drugs" gets little attention in this book. Yet cultivators have had to contend with anti-drug bureaucracies that demonize them for being primarily responsible for the drug problem in the prosperous nations of the northern hemisphere. It has been clear for at least a decade that the policies of illegalization, interdiction, and crop substitution are massive failures. Although the programs have substantially benefited bureaucratic careerists, the cost to taxpayers, especially in the United States, and to the health of civil society in many other countries is enormous. Stamped out in one place, cultivation reappears elsewhere, but that information is not revealed in the press releases from the United Nations Office on Drugs and Crime or in the U.S. Drug Enforcement Administration boasting of successes in suppressing drug plants. Curiously, however, none of the authors recommends legalization as the most sensible path out of the morass. Since the Paleolithic, psychoactive substances have been part of our humanity. The great majority of cultures of the world, past and present, have used substances to induce an altered state of consciousness. Although *Dangerous Harvest* will raise questions that it does not answer, its perspectives on the cultural, historical, and economic ties of these plants provide a counterbalance to the drug-war professionals that mass opinion wrongly assumes to hold the truth about psychoactive production.

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Most medicinal plants are endemic species, and their medicinal properties are mainly because of the presence of secondary metabolites that respond to stimuli in natural environments, and that may not be expressed under culture conditions [22, 29]. In situ conservation of whole communities allows us to protect indigenous plants and maintain natural communities, along with their intricate network of relationships [30]. Although living collections generally consist of only a few individuals of each species and so are of limited use in terms of genetic conservation [47], botanic gardens have multiple unique features. They involve a wide variety of plant species grown together under common conditions, and often contain taxonomically and ecologically diverse flora [48].