Dugout Canoes, Arrow Poisons, and the Cure for Cancer: Book Review

Todd Forrest

Ethnobotany: Evolution of a Discipline. Edited by Richard Evans Schultes & Siri von Reis. Dioscorides Press/Timber Press, 1995. Hardcover, 414 pages, $49.95

Plants, People, and Culture: The Science of Ethnobotany. Michael J. Balick & Paul Alan Cox. Scientific American Press, 1996. Hardcover, 228 pages, $32.95

Since I occasionally give tours of the Arboretum to friends and relatives who are not entirely convinced that plants are either interesting or relevant, I have developed a two-part strategy for persuading them of the joys of botany. The first part of the strategy is an appeal at the visceral level. I have my guests inhale the fragrance of a *Magnolia tripetala* flower, lick the inner bark of a *Betula lenta*, sniff a root from a *Sassafras albidum* sucker, or eat the fruits from *Amelanchier laevis*, *Actinidia arguta*, or *Vaccinium corymbosum*. If these gastronomic and olfactory treats fail to pique their interest, I switch to a topic that seems to hold universal appeal: the human uses, both traditional and modern, of the plants we grow. This part of the strategy is almost always successful—I've had visitors shrug impatiently at a *Cornus florida* in full bloom only to light up with intense curiosity when I explain that the wood of this species was once used to make wheels for roller skates and shuttles for industrial looms.

The anthropocentrism that guarantees my success on Arboretum tours might account for the recent rise in the mainstream popularity of ethnobotany, a science that focuses on the role of plants in human societies. Ethnobotanists employ the observational techniques of anthropology and the analytical tools of botany and chemistry with the broad aim of understanding both the people and plants they study. Since most unknown plants and little-studied cultures are found in the nonindustrialized regions of the world, ethnobotany often entails travel to exotic destinations far away from the world's largest cities, creating an aura of adventurous romance that appeals to those of us who missed out on the Age of Discovery. This romantic view of the science inspired a movie about an ethnobotanist working in the field (*Medicine Man*, starring Sean Connery), but it is not just desire to experience the exotic or nostalgia for a simpler way of life that motivates real ethnobotanists in their work. In addition to expanding our knowledge of people and plants, the information they accumulate might eventually provide solutions to some of the world's most vexing health problems and aid in the preservation of rapidly disappearing traditions.

Plants, People, and Culture: The Science of Ethnobotany, written by Michael J. Balick and Paul Alan Cox, and *Ethnobotany: The Evolution of a Discipline*, edited by Richard Evans Schultes and Siri von Reis, discuss ethnobotany's growth and change from the simple cataloging of useful plants to a complex, multidisciplinary science. In their well-illustrated and clearly written text, Balick and Cox illuminate a general introduction to ethnobotany with examples of their own fieldwork and some classic stories of plant research and discovery. Schultes and von Reis have edited a collection of somewhat technical essays by leading ethnobotanists and professionals from the many fields that overlap within the science, ranging from chemist Albert Hoffman to classicist Carl Ruck. On their own, each of these books presents a different image of ethnobotany; together they give a thorough and engaging view of this fascinating and continually evolving science.

As a person who is deeply interested in plants but often impatient with stolid academic prose, I was pleasantly surprised by the readability of *Plants, People, and Culture*. Balick and Cox have written their text for a broad audience without presupposing much knowledge of either botany or anthropology. The result is a lucid, beautifully illustrated tour of historical and current ethnobotanical research. Instead of simply describing the science, the authors let plants and people tell the story. Each chapter focuses on a different way people use plants (as medicines, building materials, food, spiritual aids) and gives examples of these uses from all over the world. Balick and Cox describe the manufacture of arrow poison, the use of plant-based hallucinogens, the domestication of some of our most important food crops, the construction of boats, and many other interesting and unusual uses of plants. These detailed descriptions are infused with the authors' obvious enthusiasm for their field, making reading the book seem like participating in an ethnobotanical expedition.

While *Plants, People, and Culture* is informative and entertaining, it is also something of a polemic. Balick and Cox argue that the issues ethnobotanists tackle are relevant to all of us. Using the stories of the discovery of reserpine, digitoxin, quinine, and vinblastine—drugs developed from plants using clues obtained from ethnobotanical research—they show that even in these days of gene-splicing and chemical engineering, plants still have the potential to provide us with new cures. The authors claim that because of their botanical training, their complete immersion in the cultures they study, and their respect for indigenous peoples' knowledge, ethnobotanists are singularly qualified to find these cures.

But if ethnobotanists are going to find "new" medicines, foods, or building materials, they're going to have to do it quickly. Balick and Cox point out that many of the cultures described in their book exist in places where the environment and therefore the cultures themselves are endangered by development. In some cases, the threat is so immediate that ethnobotanists drop the role of impartial observer and act to preserve both plants and traditional knowledge. Two examples of such efforts come directly from the authors' own research. Residents of the Fijian island of Kabara were known throughout the Pacific for their shipbuilding skills, but as European colonists brought their own ships and technology to the island these skills started to vanish. Ethnobotanists, fearing the complete disappearance of this knowledge, commissioned one of the last skilled boat builders among the Kabara islanders to build a traditional ship, employing dozens of islanders and keeping the ancient industry alive. When people in Falealupo, a village on Savaii Island in Samoa, were faced with selling logging rights to their forest to pay for a new school, Paul Cox and some colleagues, recognizing the cultural and biological importance of the forest, raised money to help pay for the school, saving the land from development. The book ends with the caveat that in order to achieve their goals, ethnobotanists must respect and work closely with the people they study.

If *Plants, People, and Culture* is an engaging overview of ethnobotany, then *Ethnobotany: The Evolution of a Discipline* is an in-depth analysis of its raisons d'être. More academic than entertaining, *Ethnobotany* is divided into sections, each of which includes essays concerning different aspects of ethnobotany written by a variety of social and natural scientists. There are sections on such diverse topics as the history of ethnobotany, the relevance of ethnobotany to anthropology, the contributions ethnobotany has made to medicine and agriculture, and the role of ethnobotany in conservation. Since the book is a collaborative effort, each essay is written in a different style, from Janis Alcorn's pedantic analysis of the philosophy of ethnobotany to Edward Anderson's lively discussion of the role of the liberal arts in the field. As a result, *Ethnobotany* is an informative, if somewhat arrhythmic, read.

It wasn't until 1895 that the term ethnobotany was coined by University of Pennsylvania botanist John Harshberger, but the true beginnings of the science extend much further into the past. According to E. Wade Davis, in its early days ethnobotany was indistinguishable from general botany, involving no more than the description and classification of useful plants.

Herbals such as *De Materia Medica* by Dioscorides, the *Codex Badianus* of the Aztecs, or the Chinese herbal *Sheng Nong Ben Cao Chien* can be viewed as ethnobotanical texts because they are compilations of traditional knowledge of plant uses. As Europeans started exploring Asia, Africa, and the Americas, ethnobotany became a means of identifying new commodities for import into the West. The spread of corn, tomatoes, tobacco, peppers, and other important plant products was a direct result of this early version of the science. Although they are still concerned with discovering new and useful plants, contemporary ethnobotanists interpret their observations of plant use from a broader perspective that involves not only systematic botany but linguistics, anthropology, and chemistry as well. Weston La Barre, for example, argues that ethnobotanical data have given anthropologists insight into the way cultures obtain and structure their knowledge of the surrounding world. Ethnobotany is no longer simply the description of useful plants or a means of exploiting of the world's resources: it has become a tool for general cultural interpretation with the goal of recording disappearing ways of life.

Articles by Mark Plotkin, Ghillean Prance, and C. Earle Smith discuss how ethnobotanists can aid conservation efforts by creating lists of species to target for protection. Due to the overwhelming diversity of flowering plants, the hope of protecting all plant species from extinction is probably unrealistic. Ethnobotanists can help narrow the field by determining which wild species have the most cultural importance in areas threatened by development. Some of these plants are generally unknown in the West, others are wild populations of important food crops such as sweet potato, corn, and rice that may represent new sources of genes for disease and pest resistance. And, just as Balick and Cox argue in their book, it is clear that in preserving useful plants we aid in the preservation of the cultures that depend on them.

Ethnobotany is not written primarily for the layperson with a passing interest in the field, though many of the essays would be of interest to the general reader. I particularly enjoyed the sections titled "Historical Ethnobotany" and "Ethnobotany and Geography," but in many cases the book gave me the sense of listening to a panel of experts called in to defend the legitimacy of ethnobotany against skeptical "hard" scientists. Part of this effort involves coming up with an unambiguous definition of the science (and dispelling the notion that ethnobotany is simply a newer form of romantic exploration), but because of the complexity of the issues ethnobotanists address, this task is more difficult than it might seem. Most of the definitions given are some variation of "the description of the various methods by which local peoples utilize plants"[1] or "the study of plants in relation to people."[2] In spite of this somewhat defensive tone, the essays in *Ethnobotany* taken together paint a comprehensive picture of both the long history and broad scope of field.

As the ethnobotanists in both of these books tell us about plant use in indigenous cultures, they also remind us of the debt our society owes to the observational and experimental skills of these cultures. Imagine our society without quinine, morphine, rubber, corn, or chocolate—all in use long before they were "discovered" by Europeans. Knowledge of the origins of these essential plant products should convince the reader of the importance of continuing ethnobotanical research. *Plants, People, and Culture* and *Ethnobotany* explain the methodology of and ideas behind this research and should appeal to anybody with an interest in plants or anthropology, or even in the history of science.

Endnotes

[1] J. O. Kokwaro, "Ethnobotany in Africa," *Ethnobotany: The Evolution of a Discipline*, 1995, page 216.

[2] C. B. Heiser, "The Ethnobotany of Domesticated Plants," *Ethnobotany The Evolution of a Discipline*, 1995, page 200.

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Dugout Canoe: This dugout canoe was created for the Hayward Area Historical Society Museum. The canoe is part of the exhibition from the California Exhibition Resources Alliance (CERA). This canoe was first carved as a model from a section of a willow. Then a...Â The canoe is part of the exhibition from the California Exhibition Resources Alliance (CERA). This canoe was first carved as a model from a section of a willow. Then an actual full size canoe was created from a 30" by 8' redwood log. Cure Poison cures 1 poison on a friendly target. Use Abolish Poison instead. These both cost the same percent of base mana to cast and Abolish removes poison 4 more times over 12 seconds. Many druid players do not do the quest chain to acquire this spell since it is replaced quickly by Abolish Poison. In Patch 2.3, the range of this spell was increased to 40 yards from 30 yards. Dugout Canoes, Arrow Poisons, and the Cure for Cancer: Book Review. Volume 56, Page 38. Bulldozers and Bacteria: The Ecology of Sweet Fern.Â zoom out Zoom zoom in. Cancel Generate Review No Pages Added. Close Dialog Generate My PDF. Review My PDF. List View Icon View. Close Dialog Finish Review My PDF. Generate My PDF. If you are generating a PDF of a journal article or book chapter, please feel free to enter the title and author information. The information you enter here will be stored in the downloaded file to assist you in managing your downloaded PDFs locally. Thank you for your request. Please wait for an email containing a link to download the PDF. For your reference, the confirmation number for this request is . Join Our Ma