

identity, though strong in some instances, has elsewhere disappeared, group members having assimilated into the larger society. Consequently, Native American mobilization efforts are plagued by nearly insuperable problems.

Unemployment, low income, poverty, lack of education, social problems, illness, poor health and malnutrition are widespread in the Indian community. Despite these and other problems, including racism and recurrent assimilationist pressures, the authors conclude that "a sense of unity" is emerging in the Native American community, a unity based on cultural values "distinct from those of middle-class European American society." These values, they believe, will ultimately serve as a cohesive force in mobilizing Native Americans in their quest for justice.

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Handbook of Northeastern Indian Medicinal Plants. By James A. Duke. Lincoln, Mass.: Quarterman Press, 1986. 212 pp. \$30.00 Cloth.

In recent years there has been a plethora of publications on natural remedies, along with a surge of popular interest in the subject. Each of these perhaps reinforces the other. Along with the new books has come a rash of reprints of forgotten studies of the food and medicinal herbs of American Indians. To some extent this trend may have been fed by the youth drug culture which contributed also to the best selling books of Carlos Castaneda. However, there has also been a renewal of scientific interest in herbal medicine, which may have received some impetus from the western world's belated discovery of Chinese herbal medicine. University and drug companies now scour the earth for plant medicines which might offer hope of a cure for such ills as cancer and arthritis. Margaret Kreig's book, *Green Medicine* (1964), was among the first to call attention to this phenomenon.

In the Americas, the search for natural medicines must necessarily focus on the medicines of the American Indians. Since earliest times, explorers, missionaries and traders have paid tribute to the herbal treatments of the native Americans. For many

of them, far from the seats of their own civilizations, the treatments of the Indians were all that were available, and drew praise from many. Only slowly, however, did the medical community come to recognize merit in aboriginal medicine. Despite resistance through the years, about 170 medicines of the North American natives won acceptance into the official drug compendia of the United States, the *U.S. Pharmacopeia* and the *National Formulary*.

Near the end of the last century the use of herbal medicines declined as modern chemistry began to produce synthetic substitutes. James A. Duke, author of the book under review, believes that the drug companies have fostered increasing reliance on synthetics in order to fatten their profits. He appears to believe that were it not for their greed and government regulation we could go to the fields and woods and harvest our own medicines. One can agree with Dr. Duke's assertion that the drug companies are not in business for our health, but for their own, and still hold that in this age Mr. Everyman is not equipped to be his own pharmacologist. Perhaps as an afterthought, the author warns that he describes but does not prescribe, and advises against self-diagnosis and treatment.

More on this should be said. The use of natural drugs requires the ability to correctly identify species, knowledge of the right time to harvest them and how to properly store and administer them. Incorrect knowledge of any of these things could lead to dangerous results, even death. Moreover, our urban population has no access to the natural herbs, of which many are found only in certain regions or ecological environments, and some are endangered species which could be wiped out by uncontrolled harvesting. Cultivation of wild plants, moreover, is in many cases not a viable alternative because many do not domesticate well.

Dr. Duke is a trained botanist, and this is his third book on "bioactive plants," as he calls them. He catalogs 829 plants used medicinally by northeastern American Indians, specifying which tribes used them and for what ailments. More than half of the plants listed are illustrated by plain line drawings. The author maintains that in Maryland alone are about 2800 species of flowering plants and ferns, of which published references exist concerning aboriginal medical usage of 700, or 25% of the whole. The species he lists, not confined to Maryland or even to the Northeast, are arranged alphabetically by scientific name. Following this is an index of their common names and a generic list of

ailments, each coupled with the scientific names of plants used in their treatment. He provides a list of thirty-five references which are cited throughout the book as recording the plant uses that he lists. Many of these references are secondary sources, and it might be better if he cited *their* sources. Thus could be avoided such remarks as under *Fraxinus caroliniana* (water ash) on p. 59: "Vogel recounts the story of an Indian cancer cure, applying internally and externally the juice that oozed out of the ends of the wood as it burned." What I in fact did was to quote the quack Samuel Stearns' report of such an incident involving *Fraxinum americana* in his *American Herbal* (1801), but I called it "astonishing magic" (Virgil J. Vogel, *American Indian Medicine*, p. 276). At that time the term "cancer" was often applied to non-malignant conditions. The Indians did not discover a proven cancer cure.

The most interesting part of this book is perhaps its ten page introduction. It should have been longer. Here the author evaluates the relative importance of the remedies listed according to the number of lines devoted to them by eight unnamed individuals, in addition to the space given in D. E. Moeman's *American Medical Ethnobotany* (1977) and in his own book. This seems to be a crude way to measure something. Here he also points out some of the more celebrated medicines derived from plant drugs used by American Indians, the best known of which are from Latin America: cocaine, emetine, papain, pilocarpine, quinine and quinidine. The ordinary blood root (*Sanguinaria*) of the United States has been used as an emetic, antiseptic and anesthetic. Less spectacular medicines, such as the poisonous may apple root (*Podophyllum peltatum*) of the U.S., has been used for rather minor purposes such as the elimination of warts and as a purgative. It is now being seriously studied as a potential cure for some cancers, particularly at the University of Illinois-Chicago. Dr. Duke even sees certain value in the now discredited cure-all and alleged aphrodisiac, ginseng, and sassafras root, the pioneers' "blood thinner" and earlier, an anti-venereal drug, which has recently been attacked as a carcinogen.

Dr. Duke warns that some potentially valuable plants may disappear before their potentialities are studied, and urges action:

If the NIH is interested in our health rather than the drug industries,' they will support studies of the natural drugs from which the drug companies cannot profit. Why don't we leave the profit-making syn-

thetics and lawsuits to the drug companies and urge our government to prove or disprove the Amerindian medicinals available to us for the taking? (p. xiv).

Elsewhere he attacks federal drug agencies as "the bureaucracy that stifles innovation" (p. 104). Many people, however, are thankful that the stubbornness of at least one FDA professional saved us from the tragedy of thalidomide.

Although Dr. Duke calls his book a study of Northeastern Indian medicinal plants, it lists some plants from other regions, and his reference list includes books on the medicinal flora of China, the Bible, the Creek Indians, Vancouver Island and Nevada. Also, tribes or groups mentioned in his catalog range from the Aztec, Eskimo and Kwakiutl to the Yuki and Zuni. A few of his sources are of dubious value. Some useful books are not listed, such as Alice Henkel's several titles issued by the U.S. Department of Agriculture, including *Wild Medicinal Plants* (1906), John U. Lloyd's *History of the Vegetable Drugs* (1911), Michael Werner's *Earth Medicines, Earth Foods* (1972), C. A. Weslager's *Magic Medicines of the Indians* (1973), Huron H. Smith's several studies of tribal ethnobotany, including *Ethnobotany of the Menominee Indians* (reprint, 1974), Frances Densmore's *How Indians Used Wild Plants* (reprint, 1974), and William A. R. Thomson's *Medicines from the Earth* (1978).

It is not quite clear whether the author is aiming at a general or limited audience. Certainly most people will need a medical dictionary to comprehend references to such ailments as dyspnea, hematemesis and pertussis. As a botanist, Dr. Duke should have distinguished between *Datura stramonium* and *Datura meteloides*. Only the latter was used as a hallucinogen in the Southwest.

The author's computer repeatedly provided such misspellings as aboriginees, Montagnai, acquapuncture, and epliptic. The exclamation point seems to be greatly overworked to emphasize the author's arguments.

This reviewer certainly believes that the time has come to recognize the beneficial contributions of American Indian medicine. However, the case for it must not be overstated, lest credibility be lost.

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