Foraging and Farming in the Eastern Woodlands. C. Margaret Scarry (Editor). Florida Museum of Natural History Ripley P. Bullen Series. Gainesville: University Press of Florida, 1993. Pp. xiv; 366. $49.95 (hardcover). ISBN 0-8130-1235-X.

This book is a collection of 14 essays that grew out of two separate symposia concerning paleoethnobotany in 1988, one organized by Scarry and the other by Donna Ruhl. The book focuses on prehistoric plant food procurement and production in the eastern Woodlands of North America. While pollen records are touched on and two papers focus on interpretation of ancient wood, the majority of this book deals with food macroremains: seeds, nutshell, and other plant parts. After an introductory essay by the editor, the book is divided into three sections. In the first, articles by R. Yarnell, J. Chapman and P. Watson, G. Fritz, S. Johannessen, and Scarry provide an introduction to the major issues and a chronological sweep through the region from the Middle Archaic to the Mississippian (5000 B.C. to ca. 1500 A.D.). In the second, articles by D. Decker-Walters, S. Dunavan, and L. Newsome showcase new approaches in paleoethnobotany, including the potential of plant genetics, wood anatomy, and museum collections research. The third section offers regional case studies by D. Wymer (Middle to Late Woodland in Ohio), Scarry (Moundville), Johannessen (American Bottom, focusing on food production and preparation), N. Lopinot and W. Woods (American Bottom, focusing on wood resources), F. King (Oneota), and Ruhl (postcontact Atlantic Coast).

The 10,000 year long prehistoric record of the eastern woodlands includes the dramatic transition between at least three successive prehistoric food production systems. Here, there were *two* "agricultural revolutions:" the first, the cultivation and domestication of native plants such as squash, chenopodium, knotweed, and sunflower; and the second, the introduction of maize and tobacco from Mexico three thousand years later. While foraging is covered in the first section of the book, its primary focus is on the shift toward crop production and the impact of agriculture on cultural and environmental systems. (A third transformation, the introduction of European crops after contact, is covered in the chapter by Ruhl). The sequence and dating of domestication and relative importance of the crops in these agricultural complexes was an almost complete mystery until the research of the last 30 years described in this book.

These papers are significant contributions to the culture history of the region and are general contributions to the study of agricultural systems in a social and political context. The painstaking analysis reported here has allowed the authors to document the selection of native plants as cultigens; the emergence of garden and field systems, storage facilities, and dining customs; and the adoption of, and then local heavy dependence on, an exotic crop, maize. Most important, they provide counter-examples to easy generalizations about the abilities of native agriculture systems to support complex societies, and the use of population-pressure models to explain the spread of maize cultivation. One striking pattern is the stability of food production systems over periods of considerable settlement and social changes, right up until the time that maize begins to dominate most of these river valley systems. Any mistaken impression of an "American wilderness" before contact fades as one confronts many millennia of manipulation of plants and their environments.

There are three issues which I felt had been slighted, but which may offer richer possibilities than are realized here. First, archaeological context (the location, function, or association of remains in relation to others) is seldom mentioned while reporting or interpreting finds of plant remains. Archaeologists providing sample material are responsible for providing this information, but analysts must also make the best use of it. Second, the nutritional implications of agricultural innovation are sometimes dismissed or ignored, whereas they must have been just as important or more important as some of the social changes that were taking place at the same time (the replacement of hickory nuts by maize as a staple, for example). Third, the technological implications of tilling, harvesting, and processing these crops are seldom mentioned. The wood and bone implements used in some of these regions do leave few archaeological examples, true. But, the thousands of stone implements and ceramic vessels collected over the decades before these plant remains came to light surely deserve explicit reconsideration now that the economic systems of the southeast have been documented (the paper by Sissel Johannessen is an exemplary study of this type). Archaeologists and biological anthropologists should be attracted to the rich data base which these authors can provide.

The book has become slightly dated during production. Few of the references postdate 1988, though the editor notes that direct radiocarbon determinations on maize (ca. 100 B.C. from the Holding site, the work of Riley and Walz) have given a new "basement" date for the introduction of maize to the Mississippi/Ohio valley. A minor "glitch" of this collected volume is that similar (or identical) material appears in several places, including a figure that appears twice. Nevertheless, it is obvious that much care was taken in editing and production, including the preparation of a comprehensive bibliography, index, and list of contributors. The consistency of nomenclature and terminology here will provide a standard for works which span several fields.

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