

REVIEWS

The Maya Forest Garden: Eight Millennia of Sustainable Cultivation of the Tropical Woodlands. ANABEL FORD and RONALD NIGH. 2015. Routledge, London and New York. 260 pages, 59 figures, 13 tables. \$34.95 (paperback), ISBN 978-61132-998-8. \$94.00 (hardback), ISBN 978-61132-997-1. \$31.46 (eBook), ISBN 978-1315417-936.

Reviewed by Scott L. Fedick, University of California, Riverside, and Rhode Island College

In this book, first published in 2015 by Left Coast Press, Anabel Ford and Ronald Nigh address a conundrum that has plagued Maya archaeology for over a century: How could an advanced civilization arise and flourish in a tropical forest environment considered by most westerners as an inhospitable and ill-suited setting for agriculture? Along these same lines, the supposed susceptibility of this environment has often been blamed for the decline or collapse of the civilization around AD 900, due to soil degradation through overuse, leading to erosion, nutrient loss, and weed invasion. Most recently, the vulnerability of the agroecosystem to cycles of drought has been suggested as a contributing factor to sociopolitical disorganization. Ford and Nigh offer a well-supported critique of the dominant perception of Maya milpa (slash-and-burn, maize-based) agriculture, presenting as an alternative what they refer to as “high-performance milpa,” a form of “sophisticated, intensive agroforestry” (p. 41). Ford and Nigh do not claim to be the first to offer a revisionist perspective on the Maya and their agricultural system, recognizing the pioneering studies of Arturo Gomez-Pompa, Angel Palerm, Gene Wilken, and several others who attempted to enlighten the academic world to traditional, sustainable forest management systems known ethnographically to have been used by the Maya, or that were well-suited to the Maya forest. Ford and Nigh draw on decades of personal experience with traditional Maya farmers to present a much more fully developed appreciation of the sophisticated Maya forest gardener.

The introduction to the book presents the conundrum discussed above, along with a critique of the “ecological imperialism” which has historically dominated discussion of the compatibility of the Maya lowland forest environment with agricultural production.

Chapter 1 places the Maya forest in context of the paleoecological record and the evolving ecological settings in which humans have adapted to changing conditions over the last eight millennia. A generalized summary of settlement history is presented, with a critical consideration of population estimates, demographic patterns, and human impacts on the environment. They stress the notion, supported by paleoenvironmental data, that the environment of the Yucatan Peninsula has been manipulated by humans since the forest emerged out of the previously arid and cool landscape about 8,000 years ago. When recognizably Maya culture appeared, about 4000 years ago, these agriculturalists rapidly settled a complex landscape with diverse soil resources, hydrological systems, and vegetative patterns. The Maya Lowlands were not, and are not, a uniform green plain as often characterized.

Chapter 2 presents a model of the high-performance milpa as a system of both annual cropping and management of successive perennials; a form of intensive agroforestry that involves long-term management and increasing biodiversity of the forest rather than degradation and destruction. The authors discuss the Eurocentric view of the milpa, a term borrowed and adapted from Nahuatl by the conquistadors and used to describe what the Spanish perceived as a crudely cultivated place, dominated by maize, beans, and squash, which was only used for a year or two before being abandoned for some number of years before reuse. Ford and Nigh reformulate the Eurocentric dichotomy of cultivated milpa and noncultivated woodland into the notion of a forest management cycle that relies on controlled succession and promotes food-producing species, with a long-term emphasis on trees. Controlled, small-scale cutting and burning of forest

Latin American Antiquity 29(2), 2018, pp. 406–417

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doi:10.1017/laq.2018.15

plots, and planting of annual crops represent only the initial phase of a long-term and highly productive cycle of forest farming. A geographic component of the forest farming system is recognized in the varying intensity of cultivation (the amount of time and labor invested) which decreases with distance from the primary residence. While the authors use the dichotomous terms “infield” and “outfield” to contrast the intensity of management between “homegardens” (infields) and outfields, they also refer to both homegardens and surrounding management areas as “forest gardens.” While this can be somewhat confusing, the authors are trying to convey the continuous nature of controlled plant succession in both time and space.

Chapter 3 revisits the paleoclimate record of the Maya Lowlands, highlighting the transition from the relatively stable, warm, and wet climate of the early Archaic period, to a period of “climatic chaos” that lasted from roughly 4,000 to 2,000 years ago, characterized by a fluctuating precipitation pattern that extended into the Maya Formative or Preclassic period. The development and growth of Maya culture during the Formative took place in the context of an unstable climate regime, and it was under these challenging conditions that the Maya developed and adapted a system of resilient forest management that set the stage for expansion and development during the more stable climatic conditions of the Classic period. The authors also explore the ongoing debate over the degree of deforestation versus forest management based on pollen evidence. They demonstrate the need for researchers to recognize that the vast majority of indigenous food plants, particularly hundreds of tree species, are essentially invisible in the pollen record, as they are not wind pollinated.

Chapters 4 and 5 develop and discuss a specific model for Late Classic Maya agriculture, land use, and population levels, using archaeological and environmental data from Ford’s study area in the upper Belize River area, associated with the large civic-ceremonial center of El Pilar. They find that the suitability of land resources for agricultural production correlates strongly with settlement density. Settlement density is also assumed to correlate with land use intensity. Further modeling for estimated maize yields across the variable landscape, combined with the botanically diverse production of a forest garden system, would sustainably support the average of 137–142 persons per km² estimated for the study area, while retaining a high degree of forest cover.

Chapter 6, as a conclusion, returns to an expanded discussion of the degradation and commodification of the milpa system under Colonial and post-Colonial economies. It also presents a hopeful scenario for

the future of the Maya forest that recognizes the benefits of traditional knowledge applied to forest management, combined with enlightened perspectives on conservation ecology that recognize the human role in creating and maintaining a stable and productive forest for future generations.

Overall, the book fulfills a longstanding need to reevaluate the ecological relationship of the Maya people and the forest which they have managed and maintained over millennia. The book will be of interest to archaeologists and anthropologists, as well as conservation biologists, paleoclimatologists, and those concerned with development strategies in the tropics. After finishing this book, most readers will find it difficult to maintain the hopefully outdated notion that the political and demographic disruptions of the Maya Terminal Classic period were caused by environmental degradation and agricultural collapse. My only real criticism of the book is that the authors did not attempt to expunge the conquistador-applied term of “milpa” from the modern, more ecologically enlightened perspective on Maya forest farming.

Time and the Ancestors: Aztec and Mixtec Ritual Art. MAARTEN JANSEN and GABINA AURORA PÉREZ JIMÉNEZ. 2017. Brill, Leiden and Boston. xxix + 615 pp., 187 figures. \$190.00 (hardback), ISBN 978-90-04-34051-0.

Reviewed by Jamie E. Forde, University of Pennsylvania

Time and the Ancestors: Aztec and Mixtec Ritual Art, is not the sort of general overview of Postclassic period central and southern Mexican artwork that the book’s title might imply. Instead, it is something much more specific—it is a deep analysis of the meanings behind the artifacts included in one of the most spectacular finds in Mesoamerican archaeology, namely Tomb 7 at the site of Monte Alban, Oaxaca. Nevertheless, the authors’ search for the meanings behind these objects leads them to make iconographic and thematic connections between the tomb offerings and a wide swath of prehispanic Mexican artworks, ranging from Preclassic monuments at Chalcatzingo to Aztec stone sculpture, and the Mixtec and Borgia group codices. As such, it makes for a much more interesting and inventive analysis for specialists in the field, while at the same time, it provides for more generalist readers detailed studies of a large number of the most famous artworks of Postclassic Mexico. It is an ambitious and highly interdisciplinary study, produced by two of the foremost experts in the subject.