tundras are proposed as optimal environments for early hunter-gatherer populations. Paleoenvironmental understanding of the Pleistocene interglacials remains a problem because these have generally (and incorrectly) been taken to be uncomplicated, warm-dry intervals, the main interest in them being in the function that they serve as stratigraphic markers. The importance of controlling fire—known since the Elster II glaciation at Choukoutien, China, and Torralba, Spain, about a half-million years ago—was that it allowed human penetration of mid-latitudes during cold periods. The environmental changes that occurred in Western Europe at the end of the Pleistocene, between 11,500 and 7500 B.C., marked the disappearance of the reindeer and mammoth, and the absence of these animals is viewed as the cause of a cultural crisis through food shortage, with consequent severe decline in numbers of human occupants of the area. The much-argued topic of man's influence as the agent responsible for the extinctions, at the end of the Pleistocene, of such animals as the elephant, rhino, steppe bison, cave bear, cave lion, and spotted hyena is reviewed, and human agency as a main factor is discounted. Climatic change, especially desiccation, as a factor to account for agricultural dispersals from the Near Eastern hearth area is seen to have little weight, and the alternatives of land-shortage owing to shifting agriculture and chronic overpopulation are proposed as more likely causes for this diffusion.

This volume, in attempting a synthesis of data of a variety and magnitude not heretofore attempted, most effectively shows the extent of our present knowledge of man-land relationships in prehistory, and, with respect to future investigation, it will no doubt be an important force in showing where the lacunae lie and the methods that are available to fill them. One finishes reading this book with a renewed sense of the greatness of the accomplishment of human survival, and an awareness of how little understood is the 2-million-year run of man's history. One also wonders where we have gone astray in our failure to persuade the public that a knowledge of human history is as useful and important, and equally as interesting, as a trip to the moon.

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Flowering Plants of Mexico: A Literature Survey

A Selected Guide to the Literature on the Flowering Plants of Mexico. Ida Kaplan Langman. University of Pennsylvania Press, Philadelphia, 1964. 1015 pp. $25.

This bibliography is the most important event in Mexican botany since Standley's *Trees and Shrubs*. In what amounts to both a love of labor and a labor of love, this *Guide* to the literature of Mexican seed plants has been arranged by the author and fully cross-indexed as well. There is a topical four-column index of 156 pages. Many authors (for example, Berlandier, Blake, Liebmann, Orcutt, and Purpus) take on a new dimension; for others the enormity of the bibliographic problem is only suggested. Books, articles, theses, manuscripts, archivia, and trivia—all come in Langman's purview. Some authors have supplied addenda; Ruggles Gates corrects his paper published 50 years ago. Librarians' comments spice the entries *passim*: See Miss Meeder's estimate of Orcutt. Just browsing will be rewarded.

Accuracy, said A. E. Housman, is a duty and not a virtue. Yet a bibliography that is both scholarly and meticulous will not be free from error. Unfortunately, this volume's narrow margins will not accommodate corrections, and, worse, rebinding will be a catastrophe. The indexes, like directions given by the man at the filling station, will prove to be approximate at best.

Sixty years ago J. Christian Bay insisted that the urgent needs of botanical bibliography would be solved only by the single-minded enthusiasm of individuals. The human mind remains irreplaceable in the face of mechanical devices often deemed the salvation in the compilation of a bibliography like Langman's. A computer has a medulla oblongata but lacks a cerebrum. The Swiss bibliographer Haller set forth the author's contribution, not the minutiae of the book's torso. Langman, like Haller, is concerned with what the book offers the reader. For society it is fortunate that such bibliographers have not gone with the chimney sweep. *Labor ipse voluptas*. Every user will be grateful to the foundations that have intermittently supported the enterprise, but most grateful to the compiler for her persistence.

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Evolution of Life on the North American Continent

Stratigraphy and Life History. Marshall Kay and Edwin M. Colbert. Wiley, New York, 1965. 775 pp. $9.75.

This profusely illustrated book attempts to set forth for beginning students the principles of stratigraphy and to give a summary of the main events in the evolution of life and of the North American continent. Either task is formidable in itself, and both call for skillful blending and summarizing of a vast and confusing array of data if a coherent and meaningful story is to emerge. A prodigious amount of information is assembled in this book, but assembled in such a poorly organized manner, and with so many sidelights inserted, that the point is often lost. The stratigraphic principles are obscured, and the main historical events tend to be isolated and rather meaningless.

The first 400 pages are devoted to presentation of stratigraphic principles, which are intertwined with summaries of the history of the Precambrian, Paleozoic, and part of the Mesozoic Eras. The principle of superposition of strata is emphasized in early chapters on Precambrian rocks, together with a somewhat cryptic treatment of the problems of correlation of nonfossiliferous rocks and dating by means of isotope geochemistry. The principle of uniformitarianism, the basis for all stratigraphic and paleoecological interpretation, is not mentioned. Rock-stratigraphic and time-rock units are introduced in a discussion of Cambrian rocks, but clear distinctions and good examples of these types of units are not given. Faunal zones are not defined until much later in the book. Sedimentary and biologic facies are illustrated in a series of chapters, drawing on examples from Ordovician and younger Paleozoic rocks. Tectonic control of sedimentation is suggested in a discussion entitled the "Taconian revolution."

The second half of the book is a more straightforward presentation of