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Comptes rendus

REILLE, Maurice (1990): ***Leçons de palynologie et d'analyse pollinique***. Éditions du CNRS, 206 p., 83 fig., 21 × 29,5 cm, 150 FF.

The aims of most scientific books are described in a preface or introduction and reviews focus on the extent to which those aims have been met. This book is difficult to review because the only clues as to its intent are the title, "Lessons in palynology and the analysis of pollen", and the conviction expressed by Armand Pons in the preface that it is a precious resource for instructors wishing to teach pollen analysis. This book is not, however, an introduction to pollen analysis as a technique of plant paleoecology; it is inconceivable, for example, that a modern account of pollen analysis could be written without reference to *any* of the important works of H.J.B. Birks, M.B. Davis, or T. Webb, III, and that most of the non-Francophone European literature has been ignored. Instead, the book is a primarily a summary of Reille's career research. All 38 of the pollen diagrams presented are the result of analyses by Reille in whole or in part.

The book begins with a marvellous chapter on the study of pollen morphology by light microscopy, as might be expected of an introductory text, with beautiful photographs and accompanying illustrations of pollen grains as viewed from different focal planes. Any student who carefully works through the thoughtfully chosen examples cannot help but become a competent pollen analyst. This chapter alone is worth the price of the book.

Chapter B provides an example of the study of pollen morphology in relation to the systematics of a taxon — *Cistus*. Chapter C is a brief account of pollen-vegetation relations based on moss polsters collected along a mountain transect in Corsica. It also considers the question of the origin of pollen at a bog site. Chapter D begins with an introduction to the principles and methods of pollen analysis as a means for studying past plant assemblages and continues with a description of the general features of vegetation change in southern Europe during the past 140,000 years, revisiting several of the beautifully long and continuous records for which France has become famous. Chapter E examines the contribution of pollen analysis to the understanding of modern vegetation. Aimed at students, nine examples are presented, many of them beginning with a brief description of a problem, followed by a number of questions and then answers. A number of particularly fine examples address the question of the influence of humans on vegetation and whether or not certain vegetation types are natural or the product of human interference. The examples are all drawn from Reille's own research in Corsica, central and southern France, and North Africa. Chapter F is a rosy discussion of the use of pollen stratigraphic data as a means of providing absolute age estimates when ^{14}C-dating fails. The last chapter, by A. Pons, is a clear and concise description of the quantitative reconstruction of climate from pollen data using the analogue approach.

This book is a fine summary of Reille's productive career and brings together many previously unpublished pollen diagrams and those published in journals less familiar to most Quaternary researchers. There is a somewhat slavish adherence to the Blytt-Sernander-based scheme in the zonation of pollen diagrams and an uncritical acceptance of herb-dominated assemblages as representing steppe, even those from high elevation sites. In summary, this is a highly personal introduction to pollen analysis with some refreshingly unabashed and pointed opinions, for example, that the analysis of pollen from cave deposits is largely a misguided effort and that pollen analysis is best done by botanists. Francophone students looking for a balanced introduction to pollen analysis in French will, however, have to wait.

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