

## Grains of truth

Peter D. Moore

**Textbook of Pollen Analysis, 4th edn.** Edited by Knut Fægri, Peter Emil Kaland and Knut Krzywinski. Wiley: 1989. Pp.328. £51, \$109.

HOUSED in the University of Cambridge Sub-Department of Quaternary Research are two boats used for the sampling of lake sediments; between them they support the platform from which the delicate yet strenuous operation of manual coring takes place. One boat is called *Fægri* and the other *Iversen*. One can hardly imagine a higher accolade, or a more fitting symbol of the way in which these two names have come to represent the support system of modern Quaternary palynology.

Fægri and Iversen first published their textbook in 1950, which in the following 25 years went through two further editions and some gradual evolution. The book rapidly assumed a unique position as a statement of the theoretical basis of pollen analysis and as a laboratory manual to assist in the practice of the technique. If the first three editions illustrate gradualism of evolution, this fourth edition undoubtedly displays saltation, taking on a new and hardly recognizable form. The book, like its subject, has evidently entered on a new lease of life.

Some aspects of the new edition remain the same, particularly its emphasis and coverage, which is essentially the Quaternary palynology of north-west Europe. Although many of its theoretical and methodological sections will be of value to those interested in other parts of the world and in other geological strata, the key to pollen identification remains firmly constrained within these limits. Apart from this, the entire approach has been changed and a welcome new vigour injected.

Worthy of particular mention are the chapters on the transport of modern pollen and the taphonomy of fossil pollen. Combined, these two chapters provide an excellent basis for the interpretation of pollen assemblages. Also new is a lengthy chapter on archaeopalynology — the use of pollen grains in archaeological contexts as a means of environmental reconstruction. Palynology has become an increasingly valuable tool for archaeologists, and this account should provide a useful guide to environmental archaeologists concerning the potential and the limitations of the technique.

Look at any of the old editions of Fægri and Iversen, sitting upon the shelves (or, more likely, the laboratory benches of practising palynologists), and you are sure to find that the most thumbed section will be the key to pollen identification. This is the part of the book that is guaranteed to be in daily use. Here, the most obvious change in the new edition is in the inclusion of small sketches in the body of the key illustrating important pollen features. These are extremely useful as guides to the user and are worth many words. Nevertheless, I still prefer photographs as it is so easy to idealize a diagram. I found it rather confusing that sometimes a small circle might represent an entire grain and sometimes a detail of pollen wall structure, for example. I certainly agree with the emphasis the authors place on the need to confirm identifications by reference to type material: there is no substitute for this discipline.

Sadly, Iversen has been dead for many years, but Fægri has made a splendid job of renovating this classic textbook, ably assisted by two colleagues at the University of Bergen who have bravely and very competently stepped into Iversen's shoes. □

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## National debts

Nansen Behar

**Environmental Policies in East and West.** Edited by Gyorgy Enyedi, August J. Gijswijt and Barbara Rhode. Taylor Graham, 500 Chesham House, 150 Regent Street, London W1R 5FA/Suite 187, 12021 Wilshire Boulevard, Los Angeles: 1988. Pp.401. £35, \$65.

As WE approach the end of the century, the global ecological problem, to which pollution is one of the main contributors, continues to intensify. Pollution does not recognize national frontiers. To tackle it, international cooperation is essential.

*Environmental Policies in East and West* addresses the regional problems of Europe's environment and the policies of the individual countries concerned. The contributors have been guided by the recognition that pan-European environmental policy has to be determined both by natural variations from area to area (such as those in drainage basins and patterns of climate) and by differences in the intensity and siting of industry and agriculture. Beyond that, specific policy in each country in part depends upon the prevailing economic system — that is, on whether it has a market economy or a centrally planned economy. The overall premise on which the book is based is that individual nations have to become well acquainted not only with the environmental issues that concern their neighbours but with how policy is determined to tackle them. Only with that understanding can there be successful economic cooperation in environmental protection.

Brundtland's words from *Our Common Future* (p.xiii) are the apposite motto for the book: "The fact that we all became wiser, learnt to look across cultural and historical barriers, was essential. There were moments of deep concern and potential crisis, moments of gratitude and achievement, moments of success in building a common analysis and perspective." So, have we Europeans become truly wiser in our attitudes towards nature? Here, experts from 14 countries attempt to provide the answer through discussion of case-studies. Brought together under the auspices of the European Coordination Centre for Research and Documentation in Vienna, the authors are specialists in geography, sociology, economics and engineering among others — all disciplines with relevance to environmental matters. The choice of nations represented is well balanced, both geographically and socio-politically. From the West are Denmark, the Netherlands, Britain, France, West Germany, Italy and Austria; from the East, Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, the



Probably one of the earliest drawings depicting a reforestation project, part A shows places where trees have been felled and only the stumps remain to be removed; B depicts a root being sawn into pieces; C–F describe the process of preparing the root for replanting on the hills. This drawing is reproduced from *A Forest Journey* by J. Perlin, published by W. W. Norton, £14.95, \$23.50.