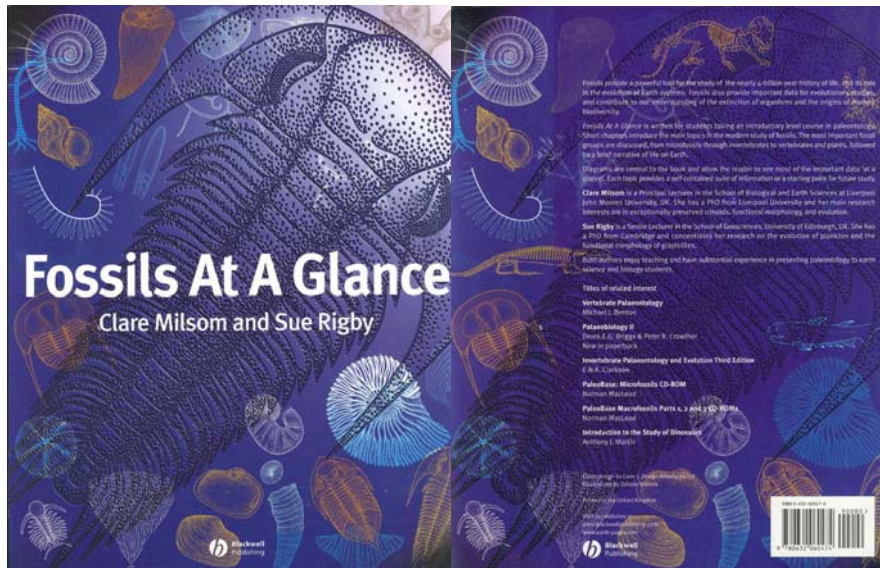


Milson, C. & S. Rigby. 2004. Fossils At A Glance. – Oxford, Blackwell Publishing

Book review by J.W.F. Reumer



This is going to be a problematical book review. Normally, a book serves a purpose, has an aim and a proposed readership and as a rule such books are worth buying. There may be certain flaws, authors may have missed a point or two, the editor may have overlooked a couple of typing errors, but the book is still worth sitting on your bookshelf. ‘Fossils At A Glance’ is not such a book. After close inspection I still wonder about its aim; I do not know what the readership is supposed to consist of; I wonder why the editor has overlooked a lot of noteworthy typing errors (Bocene for Eocene; Lagerstätte for Lagerstätte); but most of all I am astonished about the amount of serious mistakes the authors managed to incorporate in this rather condensed text.

The title ‘Fossils At A Glance’ supposes a general introduction to palaeontology for the layman/layperson. If that would indeed have been the intended readership the book should have been more colourful and less technical in its details. But I think it is meant as an introductory text for fresh biology and/or geology students, in which case the black-and-white design with many technical drawings seems more appropriate. The authors read palaeontology at, respectively, Liverpool John Moores University and the University of Edinburgh, UK. They specialise in, respectively again, crinoids and graptolites. The latter information explains the extraordinary attention paid to graptolites (eight pages) compared to echinoderms (10 pages), brachiopods (eight pages) and corals (10 pages). So far, so good, every author, including yours truly, is entitled to possess and utter a couple of idiosyncrasies, but the overall result should remain balanced.

What is the book about? Clearly, about fossils. It begins with a few introductory chapters on what fossils are and on classification and evolution. It ends with chapters on trace fossils and life during the Precambrian and Phanerozoic. Sandwiched between these, we find a dozen chapters on different groups, from sponges and corals to vertebrates and land plants. The latter is the only one on palaeobotany. Nine zoological groups are dealt with: sponges, corals, bryozoans, brachiopods, echinoderms, trilobites, molluscs, graptolites, and vertebrates. This choice is arbitrary: important groups – much more important than graptolites – are brushed together in the chapter on ‘microfossils’: foraminifera, diatoms, coccolithophores, ostracods, spores and pollen, each of considerable importance both in (palaeo)ecosystems and in the fossil record. If intended for undergraduate students, and not for laypersons or amateur fossil hunters, this gives the book a rather unbalanced character.

Most alarming, however, certainly for students that are entering a potential career in palaeontology, are the many outright mistakes. Let me mention a few. On p. 7 it is observed that spores and pollen are well preserved in the fossil record because they “have a resistant waxy coating”. Instead, the entire outer test of pollen is made of a resistant substance (sporopollenin). The waxy coating is to be found on apples and grapes.

“An unexpected bonus in the study of genetics has been the realization that each evolutionary step in the history of an organism is recorded somewhere within the DNA of each living member of the species”. This is worse than Lamarckism, it is nonsense! I hope that it should read “... each evolutionary step in the history of a species ...”, for otherwise the students in Liverpool and Edinburgh are to be lamented. The history of no organism ever showed evolutionary steps, let alone that these happenings are recorded in the genetic software of every living conspecific. I am sorry, but this sentence on p. 13 had a devastating effect on my appreciation for the book.

Much further, on p. 95, in the chapter on vertebrates, we can learn that marsupials are found in South America and Australia, and placental mammals in Asia, Europe, and North America. Then what about Paleogene marsupials in Europe? What about the wealth of placentals in South America: the notoungulates, the caviomorph rodents, the sloths and armadillo's? And what about the entire superorder of Afrotheria that originated in Africa: the elephants and hyraxes, the golden moles, the sirenians, the aardvarks and their kin? Are they all non-existing? Page 103, to end this lamentation, teaches that the Late Devonian to Jurassic seed ferns are "Fern-like plants with spores on the leaves". Sic: seed ferns with spores! This needs no further explanation.

When – in the early 17th century – a popular Dutch politician was sentenced to death for high treason he was to be beheaded on the courtyard of the government buildings in The Hague. After having climbed the scaffold he saw the executioner waiting with the sword, and asked him: "Please, do it quickly". (He did). I thus now stop. This book is not to be recommended, neither for the amateur nor for students. Fortunately, Blackwell can do better. Much better.

Milson, C. & S. Rigby. 2004. *Fossils At A Glance*. – Oxford, Blackwell Publishing. 155 pp. ISBN 0-632-06047-6. Price € 19.99 (paperback).