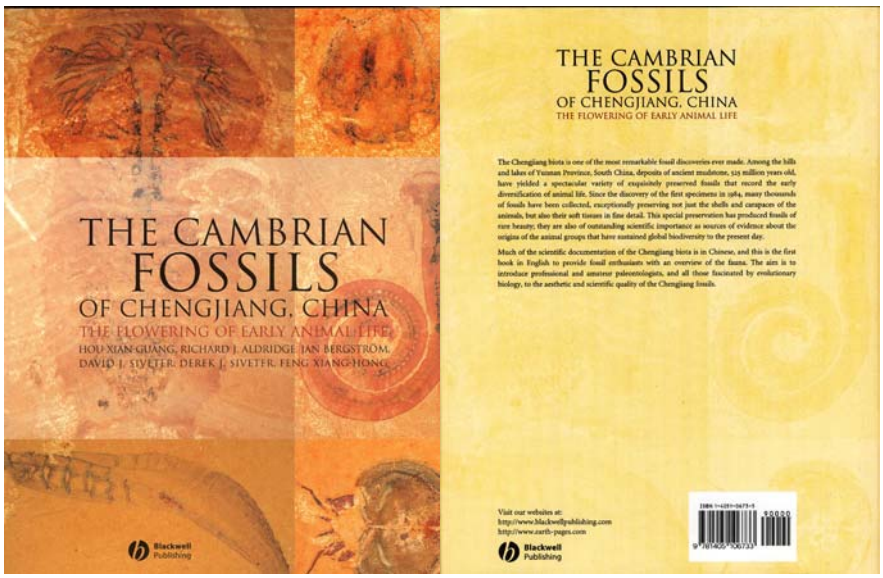
Hou Xian–Guang, R.J. Aldridge, J. Bergström, D.J. Siveter, D.J. Siveter & Feng Xiang–Hong. 2004. The Cambrian Fossils of Chengjiang, China. – Malden, Blackwell Publishing

Book review by S.K. Donovan



Most of us work on fossils that have relief – bones, teeth and shells have bumps, ridges, holes, curves or whatever. Such specimens preserve a resemblance to their appearance in life and we are happy to work on them. But consider the two dimensional world of those who devote their time and strain their eyes in blowing 'life' back into the flattened denizens of a Cambrian *Lagerstätte*. Thanks to Stephen Jay Gould and 'Wonderful Life' (1989), such deposits, dominated by the pancakes of the world of fossils, are now among the star turns of palaeontology, lit up in lights alongside dinosaurs, hominids and Ice Age mammals. The latest contribution to highlight the importance of such a biota is 'The Cambrian Fossils of Chengjiang, China', which describes and illustrates an array of weird and wonderful denizens of the Early Cambrian, that is, even older than the Burgess Shale.

This volume is well produced on good quality paper, about 252 x 194 mm and with an attractive dust jacket that entices the potential reader with images of fossils from Chengjiang. My only criticism of the text, which is generally well written, is that in places the discussion of closely related organisms gets a little repetitious, such as in the section on lobopods, but this a very minor quibble. A series of brief introductory chapters is followed by a phylum–by–phylum account of the major groups known from this locality. These chapters form the main body of the book, but it is a 'field guide' that few of us are likely to use. While the text is good, the real attraction is the excellent series of colour images of Chengjiang fossils. The format works very well; each major group is introduced, then each species is described on a left page facing illustrations of it on the right. Photographs are in colour and many are supported by reconstructions. I would have liked to see more reconstructions of, say, some of the more peculiar arthropods such as *Leancholila illecebrosa* (Hou) (pp. 122–123) or, particularly, the primitive chordate *Myllokunmingia fengjiaoa* Shu *et al*. (pp. 192–193). Even if reconstructions are difficult, explanatory figures of complicated photographs (*e.g*., p. 101) would help everyone. Concluding sections include a list of all well founded species known from Chengjiang, a detailed reference list and an adequate index. The only additional section that I would like to have seen included is a glossary of the specialised terminology; however, most obscure terms can be deduced from the text, supported by the illustrations.

What did I learn from 'Chengjiang'? I was surprised that the extensive faunal list includes no echinoderms, a well known component of the Early Cambrian fauna (Paul & Smith, 1984). Molluscs are absent, too, unless hyolithids are included therein. I was delighted to see a fossil ctenomorph, which are so rare in the fossil record. The arthropods are the most diverse group, not unexpectedly, but there are also diverse sponges, 'worms', lobopods, anomalocaridids, brachiopods and fossils that defy classification. I was particularly intrigued by *Vetulicola cuneata* Hou (pp. 188–189), an unmineralized organism with a morphology broadly reminiscent of a carpoid (compare with Kolata *et al*., 1991: figure 6). My favourite image (p. 181) shows a nest of epifaunal lingulids attached to a shell, not exactly what is taught in the text books. And my favourite organism has to be the 'enigmatic' *Yunnanozoon lividum* Hou *et al*., like a cross between an armadillo and a vacuum cleaner with gill slits. It will keep palaeontologists guessing as to its precise affinities for years to come.

This book is excellent, indeed beautiful, and would grace the shelf of any palaeontologist. It is well written, attractively produced, and a treat for both brain and eye. The authors have done a fine job of taking what are little more than 'smudges' – commonly flattened, dark brown fossils in a paler brown rock – and turning them into such a truly appealing palaeontological extravaganza. 'Chengjiang' may appear expensive, but the moderately high cost is largely for the many colour images that are the principal focus. It is worth every cent.

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