

Fossils Illustrated Volume 2 Trilobites

By Harry B. Whittington
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Harry Whittington is one of the most accomplished and authoritative paleontologists in the world today. Although best known among non-specialists for his leadership in the critical reassessment of Canada's famous Burgess Shale fossils, highlighted in Stephen J. Gould's *Wonderful Life*, Whittington is first and foremost the distinguished dean of modern trilobite studies. And trilobites, as Gould proclaims in his spirited preface to this welcome book, are the "primary symbols" of invertebrate paleontology; true icons of an age before the rise to dominance of terrestrial animals with backbones. Aside from the seemingly ubiquitous dinosaurs, no other group of extinct organisms arouses such wonder and curiosity as these armoured, three-lobed denizens of Paleozoic seas.

In the concise and conservative style that has characterized a body of work spanning some 54 years (and still counting) of meticulous research, Whittington lays bare all the secrets of the trilobites. In seven succinct chapters (with accompanying line illustrations) we learn about everything from anatomy and activity to zoological names. State-of-the-art views are balanced by an astute historical perspective, allowing us to track the progression of ideas about trilobites through nearly 150 years of paleontological investigation. In fact, the author himself has been of considerable influence in developing much of what we now accept about the life and times of these ancient arthropods.

But it is not so much the narrative that commands attention. The 120 plates of black and white photographs following the text form the meat of the book. These are mostly from Whittington's own research and, more than anything else, attest to the breadth of his stratigraphic, geographic and systematic experience and expertise. Illustrations run

the gamut from *Paradoxides*, spiny giant of the Cambrian, to the diminutive Permian *Ditomopyge*. There are representatives from such far-flung places as the Canadian Arctic islands and Yunnan, China. The numbered plates are preceded by 28 pages of detailed explanations.

Many of the individual images are themselves products of Whittington's innovative photographic efforts, for he has often refined traditional procedures or developed new techniques to wring the maximum amount of information from difficult subjects. And herein lies my major criticism. The production value of the plates, in the copies that I have seen, simply does not do the images justice. Surely, in a series entitled *Fossils Illustrated*, the editors should have paid a little more attention to such simple things as layout, trimmed edges, parallel margins, and clean, uniform backgrounds, the standard requisites of any self-respecting journal. As a result of sloppy production, stunning photos of the minute silicified specimens that formed the core of Whittington's research for many years are marred by the blatantly blacked-out supporting toothpicks against a murky grey background. Other plates display obvious attempts to ink out distracting details in the field of view, or areas where trimming has accidentally or deliberately truncated portions of fossils. In this day and age of advanced reproduction techniques, there is no reason for unmasked images such as these to make it into print. Happily, in most cases, the fossils and photographs transcend this unfortunate treatment.

A lesser quibble concerns the references. There are very few specific citations of published works within the body of the text, so anyone used to journal-style referencing might feel a little lost. General references, arranged alphabetically by author, are provided for each chapter, but I would have found it more convenient had these been placed at the end of the appropriate section, rather than in sequential order at the end of the text. And, unfortunately, there are numerous cases in which individual authors are mentioned in reference to particular aspects of their research, but there is no listing for them in the chapter references. Anyone wishing to further pursue these particular points will be left high and dry.

It is difficult to know who this book

might appeal to most. The series is ostensibly "by geologists for geologists", and it will clearly be a tough haul for the general reader with no biological or geological background. Whittington pulls no punches with terminology, and although most of the trilobite-specific epithets are defined at some point in the text, there is no glossary to come to the rescue of those struggling with a phrase such as "convex, longitudinal axial region", encountered at the top of page 2. Even the well-informed armchair paleontologist or weekend fossil collector might occasionally be put off by the nonsense narrative.

Dr. Whittington is not often given to flights of extravagant erudition and there are few places in the text where he relaxes, allowing a glimpse of the person behind the pen. In one of these lapses, he admits to the "thrill and pleasure of seeking and finding trilobites", coupled with a fervent plea for responsible collecting and a paean to the importance of museums, all sentiments that this reviewer would heartily echo.

Certainly trilobite fans in Canada, professional and amateur alike, will find much to admire in this volume. Nearly one third of the plates are wholly or partly dedicated to fossils from Canadian localities, including the Burgess Shale. Another 25 or so include trilobites that either occur in Canada or are sufficiently similar to Canadian forms to make the plates relevant. The real strength of this book derives from Whittington's unquestionable mastery of the entire field of trilobite studies. There is more authoritative information packed into this volume than one can hope to absorb in a single reading, and each of the photos will remain an enduring image. For anyone who has ever stared into the eyes of a trilobite and wondered, the answer is probably in these pages.