
BOOK REVIEWS

Trilobites worldwide. The world of trilobites and their Reflection in Philately. Triboliten weltweit. Die Welt der Dreilapper und ihr Spiegelbild in der Philatelie. By Hans Ulrich ERNST and Frank RUDOLPH (2002). Verlag Dr. Friederich Pfeil. Munich (Germany). 118 pages, 173 figures; 21,3 x 24,5 cm, hard-cover; ISBN 3-89937-003-1.

The aim of this book (a bilingual text, written in both German and English) is to present the trilobites depicted on stamps issued to date by postal authorities in various countries. Official postmarks, envelopes and postcards illustrating trilobites are also included. The book is the outcome of exhaustive research throughout the world. It is the largest compilation on this particular subject and one of the most important books on nature, comparable with other catalogues of minerals, birds, plants and other fossils, although the latter rarely provide such appropriate complementary information as that offered by this catalogue-book.

The quality of edition and printing of the book (excellent paper and binding) is consistent with its aim, which is to reach a wide range of readers interested in Palaeontology, be they professionals or amateurs. Of a total of 118 pages, the first 110 are dedicated to texts and figures and the rest to bibliography (111-113), an index of stamps and postmarks (114-117) and an index of illustrations (118).

Dr. R. M. Owens, of the National Museum of Wales, a reputed specialist in trilobites and an expert on Philately, is the author of the splendid foreword. He begins by emphasising the interest people have in collecting objects, and gives a historical view of one of the most popular pastimes, Philately, a field in which collectors specialise to a greater or lesser extent. Fossils are one of these new specialities.

Dr. Owens points out the contrast between the big interest of collectors for trilobites and the small volume of stamps with trilobites as their theme issued by postal authorities in different countries in comparison to the volume of other groups of fossils, dinosaurs, for instance. However, some countries such as the Czech Republic are well aware of their "trilobitic" heritage. Although such countries have considered the trilobites from a philatelic

point of view there remain many gaps as the number of trilobites featured in stamps, postmarks and other forms of philatelic stationary is far from the number of trilobites found. The prologue concludes with an optimistic tone as the number of stamps with references to palaeontology, including trilobites, in different countries has grown phenomenally in the last few years. Although their issue has been sporadic in the past, over half of the stamps in the book have appeared in the last six years.

In the introduction the authors give a short review of philatelic collecting and introduce the very first trilobite stamp, issued by the People's Republic of China in 1958. This stamp illustrated a cranidium and pygidium of the late Cambrian *Kaolishania pustulosa* from northern China swimming in the seas of the Paleozoic.

Among the published works dealing with philately and trilobites the authors of the present book point out two that differ from other common catalogues in view of the complementary information they give. The first, written by R. M. Owens, is published in "Trilobite Papers", No. 3, 1991 and includes ten detailed stamps featuring different species of trilobites. The second, with a summary of commemorative stamps, envelopes and postcards depicting trilobites, was written by H. Schumacher in 1996 and published in the special 20th edition of "Mitteilungsblätter der Motivgruppe Geologie".

Like most treatises on Palaeontology the rest of the book is divided into two parts. "What is a trilobite?" is the title of the first, a short, eleven-page summary focused on palaeontographic and functional anatomy aspects of the trilobites and their stratigraphic distribution from their origin in the Early Cambrian Epoch until the nearly end of the Permian. A description of the morphologic characteristics, the sense organs, ontogeny, locomotion, way of life and behaviour of trilobites is also included. This first part is complemented with a schematic figure of morphological terminology of trilobites and a series of photographs, some of them exceptional, that round off the texts and ease the understanding of the descriptions of species or genera depicted in stamps and other philatelic material in the next part.

The second part is longer, with a total of 89 pages. Stamps and related philatelic stationary are classified.

Unlike ordinary books and catalogues, where the arrangement is made according to countries, dates or subjects, in this book trilobites are arranged following the classification proposed by R. A. Fortey (1997) in the *Treatise on invertebrate Palaeontology* and followed by almost all palaeontologists. According to both this classification and the fact that authors found examples of all orders of trilobites, this part of the book is divided into nine chapters. The first eight focus on each of the accepted orders and the last chapter deals with both non-determinable trilobites and those stylised by designers of stamps and philatelic motifs.

The number of times the various orders of trilobites appear is highly variable. The order of Agnostida is only represented once. In contrast, the order of Phacopida, the most frequently found in Philately, shows twelve species; two of these twelve species, in open nomenclature, are included in the genera of *Phacops* and *Asteropyge* by the authors. Other orders have intermediate appearances: four different species for each order of Redlichiida and Corinexochida; six for Lichda and Proetida; and seven for the orders of Asaphida and Ptychopariida. Some of species appear more than once on different stamps and/or postmarks and other related philatelic stationary. Such is the case of *Olenoides serratus*, *P.(Pedinopariops) brongniarti*, *Selenopeltis buchi* and others.

Those stamps and postmarks featuring trilobites that either have not been classified or exhibit characteristics that do not fit any accepted species are found at the end of the systematics chapter. Neither these forms nor an extra form mentioned in the appendix, together with a warning about the danger of forgery in the market, will be considered here.

The philatelic reproduction of the trilobites agrees with the number of genera found in the fossil record that belong to each of the systems of the Palaeozoic. Thus, the best represented systems are the Cambrian and the Ordovician with 13 and 17 different species respectively featured in stamps, postmarks and other related philatelic material. Six species belong to the Silurian and another nine to the Devonian. It is important to notice the decrease in the number of forms in the Silurian during this period, when the fauna was recovering from the Great Extinction at the end of Ordovician. It is during the Devonian that trilobites recover their importance both in the fossil register and, nowadays, in philately. Finally, the Carboniferous and Permian systems are both represented by just one species. This shows the little opportunity trilobites had to diversify after the episodes of extinction, Kellwasser in the Upper Devonian and Hangenberg in the Devonian - Carboniferous boundary when a general decline ended with their extinction in the Late Permian.

The presentation of the philatelic material following the systematic arrangements employed in the *Treatise on*

Invertebrate Palaeontology, together with photographs of the classified species and the wide and precise information given, distinguishes this book from other catalogues. For this reason, as the authors themselves state, this book is intended for those interested in fossils, trilobites in particular, and those interested in Philately, whether or not they are specialists.

Dr. Miguel A. Arbizu
Department of Geology
University of Oviedo. Spain

Atlas of Plants and Animals in Baltic Amber. By W. WEITSCHAT and W. WICHARD (2002). Verlag Dr. Friedrich Pfeil, Munich (Germany). 256 pages, 92 color plates, 124 figures; 29 x 21.7 cm, hardcover; ISBN 3-931516-94-6; Euro 75,00, US\$ 98.00.

When asked by people as to the nature of my employment, I often respond by saying that "I am a paleobiologist." Often the reaction is a quizzical look, after which I state that "paleobiology is the study of ancient life." Typically, I almost always receive some variation of the following comment: "Oh, then you must study dinosaurs, look at amber, or go on digs for artifacts." This usually is followed by my feeble attempt to relate paleobiology to their earlier comments, but I am always amazed by the pervasiveness of amber in the public consciousness amid discussions of fossils or premodern organisms. Whereas dinosaurs exert a fascination that is larger than life, it seems that amber represents another exceptional feature of the fossil record: namely, it is viewed as the epitome in fossil preservation and presentation. Interestingly, these two celebrated features of the fossil record—dinosaurs and amber—crossed paths several years ago in the popular movie *Jurassic Park*, and in spite of some inaccuracies on the screen, made an audience aware that the study of amber is a serious intellectual quest.

The task of presenting the science and wonder of amber has been greatly extended by coauthors Wolfgang Weitschat and Wilfried Wichard in an *Atlas of Plants and Animals in Baltic Amber*. The front and back endpapers are a prodromus: the front drawing presents a conspicuous kingfisher in the foreground, a tarsier-like primate in the middle distance, and faint outlines of tapirs browsing in the distant mist, all of which are surrounded by epiphytic bromeliads, ferns, clinging lianas and a generic conifer producing copious flows of resin as dragonflies, butterflies and other insects flit about. The back endpaper depicts a large, ominous and predaceous bird, a *Diatryma*, lurking amid palmettos in the background, as various insects dance above a water-lily pond and grassy glade, all of which are surrounded by the same resin-gushing and