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When the Museum moved to South Kensington in 1881, controversy over evolution was at its height and although the reference collections were not at first employed directly to advance evolutionary ideas, the work of its staff has always contributed ultimately to evolutionary knowledge and to explaining the principles underlying natural history. It is therefore appropriate that the Museum's centenary year should be marked by the publication of two volumes on evolution. This subject not only links all living organisms, but also the organic to the inorganic world, and the Past to the Present, thereby providing a theme to which all five science departments in the Museum (Botany, Entomology, Mineralogy, Palaeontology and Zoology) can contribute.

The wide range of subjects currently studied in the Museum ensures that there are many areas and individual spheres of interest and expertise within the broad spectrum of theoretical and empirical evolutionary studies. This knowledge is tapped here in a series of very personal essays which reflect the widely differing approaches to the study of evolution.

The title summarises, in simple terms, the essential elements of evolution. CHANCE - the interplay of cosmic forces that brought the Earth into existence and the often fortuitous, random mutations and other genetical changes that collectively contribute to the evolution of life. CHANGE - the formation and destruction of continents and ocean floors as rocks and sediments are generated, eroded, and recycled, and the infinitely variable patterns of life as plants and animals diversify. CHALLENGE - the ever-changing physical and biotic environments to which living organisms respond, and in so responding, evolve.

Although, in its generally accepted sense, the concept of evolution dates back some 200 years, it did not attract great interest among naturalists (and the general public) until after the publication of the famous paper on 'Evolution by natural selection' by Darwin and Wallace in 1858, followed almost immediately by Darwin's monumental *Origin of Species by means of Natural Selection* (1859). The ensuing stream of publications on evolution and evolutionary theory eventually became a flood which as yet shows no sign of diminishing. The present volumes do not set out to review the research output of the last century, neither are they intended to serve as text-books: their aims are more modest, although not perhaps less important. They show how the evolution of life is linked to that of the Earth itself, thus providing a broader perspective than is possible with most text-books. Intelligible accounts of highly specialised and very different work should help to disseminate ideas between specialists in fields between which there is usually little contact. Finally, students should benefit from a set of essays which are not always uniform in philosophical outlook and which demonstrate the disagreements that are part of the continuing challenge of research and of the theory of evolution itself.

The first volume - *The Evolving Earth* - demonstrates the interrelated contributions of Mineralogy, Geology, Oceanography and Palaeobiology to an understanding of the changing physical and chemical backgrounds against which plants and animals arose and evolved. In so doing it also describes the environments which have supported living organisms, and shaped their adaptation and diversity during the last 3.5 thousand million years.

The revolutionary changes in cosmological and geological thought during this century are reflected in the sections on the origin of the Earth, and on continental drift and plate tectonics. Controversial hypotheses, such as that of an expanding Earth, which still require further testing and evaluation, are included. Apart from those essays which review the background to continental drift, biogeographers should be interested especially in the later chapters on Mesozoic and Cenozoic palaeogeography which provide a framework for the study of present-day distributions.

The second volume - *The Evolving Biosphere* - is necessarily more selective and less comprehensive than its companion since its scope is potentially greater. It is concerned with the mechanisms and interactions which produce and account for the diversity, coexistence, coevolution and distribution of plants and animals in the world today. There is naturally much emphasis on speciation, the basic process underlying these phenomena, and the one subject not discussed in the *Origin of Species* since nothing was known in Darwin's day of the possible mechanisms involved. The arrangement of these essays is essentially similar to that followed by Darwin in '*The Origin*', thus serving to underline changes in thinking on evolution and evolutionary processes since the mid-nineteenth century.

Major problems, both philosophical and practical, which still hinder our understanding of evolution are not avoided. The contributions show the diversity of interpretation and opinion held by students of evolution, and highlight the dynamic state of modern evolutionary biology. They also show how taxonomists have contributed to the advance and interpretations of evolutionary theory, and how in turn a deeper appreciation of evolutionary processes, and hence of phylogeny, has influenced taxonomic theory and the practice of classification.

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The above notes are from the foreword by Dr. R. H. Hedley, the Director of the Natural History Museum. Twenty-one members of staff of the museum have contributed to this book whose contents are shown on the next page. It describes some of the ways in which the Earth's biosphere has evolved to its present level of complexity and diversity. The first section is concerned with the fundamental unit in biology, the species, and the mechanisms of speciation; the second deals with the interaction between species (and other taxa) and the last with biogeography. Although a paperback the book is stitched in sections and may repay being casebound to withstand heavy use to which it may well be put. It is a fascinating collection of topical accounts of current thinking by taxonomists and evolutionists working in our foremost institution for such studies.

The Natural History Museum at South Kensington - A History of the British Museum (Natural History) 1753-1980 by William T. Stearn.

£9.95, Heinemann in association with the BM(NH); 414 pages.

It's all here - the friction between personalities, the difficulties experienced by the Directors and staff over the years, the changing style and fashion both in the public eye and behind the scenes. The growth of the collections and the individual stamp of the Keepers and other staff, as seen in the development of one of the most famous museums in the world, are all dissected and commented on by Professor Stearn. This is a book notice, not a review, so all I can say is that I believe everyone should have a copy and will undoubtedly profit from reading it. As a paper back, albeit a bulky one, it could have been a little less expensive although it is stitched in sections so there is no chance of any pages dropping out if handled excessively.