

PALÆONTOLOGICAL MEMOIRS AND NOTES

OF THE LATE

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AND FOR MANY YEARS

SUPERINTENDENT OF THE H. E. I. COMPANY'S BOTANICAL GARDENS

AT SUHARUNPOOR AND CALCUTTA.

WITH A

*Biographical Sketch of the Author.*

COMPILED AND EDITED BY

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FAUNA ANTIQUA SIVALENSIS.  
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## P R E F A C E.

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ON the announcement of the death of DR. HUGH FALCONER, on January 31, 1865, there was but one feeling among men of science—that a master mind had passed away, and left little behind of the vast amount of palæontological knowledge acquired during a period of thirty years. Gifted with a memory rarely equalled, to which he too often confided the results of his researches, and having a natural aversion to publish his views without thoroughly sifting every fact which could be brought forward to corroborate or refute them, there can be no doubt that the loss to science consequent on his death is in a great measure irreparable. For many years, however, Falconer had been in the habit of noting down careful descriptions, with measurements, of many specimens which he believed to elucidate the subject of his investigations. The present work is a collection of memoirs, some of which were published during his lifetime, but many were not, together with such passages from his Note-books as have appeared to the Editor most important and complete.

The work is divided into two volumes, of which the first gives the results of the author's investigations on the Fossil Zoology of the Sewalik Hills, and the second is

composed of memoirs and observations, for the most part written subsequently to his return to Europe.

Many of the memoirs in the first volume have been already published, but in journals which are accessible to few scientific men in England or on the Continent. Others, though written many years ago, are now published for the first time. The researches on the Fossil Fauna of the Sewalik Hills were conducted by Dr. Falconer jointly with his friend Captain (now Sir Proby T.) Cautley, and all the new species were announced in their joint names. Some of the published memoirs appeared in the names of both, and others in the name of one only of these observers; but all have been here collected, so as to bring together as complete an account of the Sewalik Fossils as is now possible. With the same object, several short notes by Messrs. Baker and Durand\* have likewise been inserted. Most of the papers have also been enriched by appendices, in the form of extracts from Dr. Falconer's Note-books and correspondence, or from his published descriptions of the Sewalik Fossils in the Catalogue of the Asiatic Society's Museum in Calcutta. The first volume likewise comprises an Index to all the published plates of the 'Fauna Antiqua Sivalensis,' compiled by the Editor from entries in the author's Note-books, from references to the figures in his published memoirs, and from labels in his handwriting on the figured specimens now in the Palæontological Gallery of the British Museum. For assistance in identifying these specimens the Editor is under obligations to Mr. W. Davies of the British Museum. In the first volume will also be found a Report by Dr.

\* Now General Baker, and General Sir Henry M. Durand, K.S.I.

Falconer of his expedition to Cashmeer and Little Tibet, in 1837-38, with notes and appendices.

Of the second volume certain of the memoirs have been already published, but many now appear for the first time, and particularly the important memoir and memoranda on the fossil species of Rhinoceros ; while all have received valuable additions from the author's Note-books and letters.

It is necessary to state that many of the memoirs and notes now published were written long before the author's death, and that possibly he may have seen reason subsequently to modify or change certain of the views expressed. Any one who knew Falconer's extreme caution, and the frequency with which he revised and re-studied all his views and observations before committing them to the press, will probably feel that he would have deprecated the exposure which has now been made of what in some instances may have been only first impressions of the specimens which he described. But unfortunately, the powerful and discriminating intellect which would have erased the error of first impressions and moulded scattered observations into a harmonious whole was gone ; and the question to be decided was, whether or not the observations carefully made, and in many instances minutely and accurately recorded by a shrewd, experienced, and conscientious searcher after truth, were to be for ever lost ? As an executor of my departed friend, I have not hesitated in adopting the alternative which I believe will conduce most to the perpetuation of his name in Palæontological Science ; while I am not the less assured that the publication of these volumes will meet with the approval of his former friends who still labour in the same field of research.

At the same time it ought to be distinctly understood, that many of the memoranda and notes which are now made public are not only fragmentary, but were simply the expressions of the author's mind at the dates which they bear. Throughout the volumes these notes are printed in smaller type than that of the finished memoirs.

Since Dr. Falconer's death the Editor has deposited in the Palæontological Department of the British Museum a large number of the specimens, casts, and drawings which are now for the first time described, and which will thus be accessible to those who may be interested in their examination. These include all the original drawings illustrating the important descriptions of Fossil Rhinoceros and *Elephas Melitensis*, copies of seventeen unpublished plates of the 'Fauna Antiqua Sivalensis,' as well as outline tracings for the drawings necessary to complete that work.

Falconer was not only a palæontologist, but a botanist of repute. His Indian career was spent as Superintendent of the Botanic Gardens of Suharunpoor and Calcutta, and in Calcutta he was also Professor of Botany in the Medical College. Of late years, however, he paid comparatively little attention to botany. But, although it is as a palæontologist that he will hereafter be remembered, several of his botanical memoirs are of great interest and value. A complete list of them is given in the first volume, but none of them have been reproduced.

The biography which is given in the first volume will not only interest Falconer's former friends, but will explain the circumstances under which some of his researches were undertaken, and others suspended. It has been constructed from brief memoranda written by him-

self, from letters addressed by him to his former fellow-students, the Rev. Dr. Gordon of Birnie, and the Rev. Duncan Campbell of Pentridge Rectory, to the late Professor Jameson of Edinburgh, and to his intimate friends Sir Proby Cautley, Mr. Arthur Grote, Colonel Wood, and M. Ed. Lartet, which have been kindly entrusted to me for the purpose, as well as from other sources. It might have been possible to extend it; but I have preferred incorporating the scientific information, which I have been enabled to extract from Dr. Falconer's correspondence, in the form of foot-notes, with the memoir to which in each case it refers. Throughout the work, the orthography of Indian names, on which scarcely two writers agree, is what was adopted by Dr. Falconer himself; while that of the specific names of fossils, as was Falconer's habit, has been rendered in accordance with Bronn's '*Nomenclator Palæontologicus*.'

The admirable lithographs which illustrate the work have been executed by Mr. Joseph Dinkel, and have been partly copied from figures in the '*Fauna Antiqua Sivalensis*,' or from original drawings belonging to Dr. Falconer, and partly drawn from the original specimens in the British Museum or in other collections. The Rev. John Gunn of Irstead, with his wonted readiness to render his valuable collection available for the advancement of science, has forwarded several of his specimens to be figured.

To the Editor of these volumes it is a matter of regret that the work which he has now completed has not been executed by some one more competent to deal with the subjects of which they treat, and less liable to professional interruptions. But as the object has been to place the results of Dr. Falconer's labours before the

scientific public without any addition or comment, an expert in the science did not seem necessary; while the time required for collecting and arranging his widely-scattered observations would, probably, have precluded any of the small number of British palæontologists from undertaking the task. Lastly, although further delay might have rendered the work more complete, this advantage would have been more than counterbalanced by the loss to palæontologists, in the meantime, of the results of some of Falconer's researches.

'Nec dubitamus multa esse quæ nos præterierunt: homines enim sumus et occupati officiis, subsecivisque temporibus ista curavimus.'<sup>1</sup>

<sup>1</sup> Pliny, Præf. in 'Nat. Hist.'