ON THE ORIGIN OF SPECIES: OR, THE CAUSES OF THE PHENOMENA OF ORGANIC NATURE: A COURSE OF SIX LECTURES TO WORKING MEN

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On the Origin of Species: Or, the Causes of the Phenomena of Organic Nature: A Course of Six Lectures to Working Men by Thomas H. Huxley

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THOMAS H. HUXLEY

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BY

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NEW YORK: D. APPLETON AND COMPANY, 1889.

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PREFACE TO THE AMERICAN EDITION.

THE publication of Mr. Darwin's work on the "Origin of Species," whether we consider the importance of the questions it raises, the ability with which he treats them, the boldness and originality of his speculations, or the profound and universal interest which the book awakened, must be looked upon as marking an era in the progress of science. But while it called forth a due share of candid discussion and intelligent criticism, it has been vehemently and persistently assailed by many who understood nothing of its real character; and the subject has hence been so overloaded with prejudice and perversion that unscientific people hardly know what to think or believe about it. In these circumstances, those who disencumber the subject of its difficulties, simplify its statements, relieve it of technicalities, and bring it so distinctly within the horizon of ordinary apprehension that persons of common sense may judge for themselves, perform an in-

PREFACE TO THE AMERICAN EDITION.

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valuable service. Such is the character of the present volume.

Prefixed to the English edition, is the following note from Professor Huxley: "Mr. J. Aldous Mays, who is taking shorthand notes of my 'Lectures to Working Men,' has asked me to allow him, on his own account, to print those notes for the use of my audience. I willingly accede to this request, on the understanding that a notice is prefixed to the effect that I have no leisure to revise the Lectures, or to make alterations in them, beyond the correction of any important error in a matter of fact."

The reader will not regret that the Lectures appear in this form. Taken from the lips of the distinguished naturalist, as he addressed an audience of 'Working Men,' they have a clearness, a directness, and a simplicity which belonged to the circumstances of their delivery. In this respect, the following Lectures are incomparable. Dealing with the most abstruse and fundamental questions of mind and organization, these subjects are nevertheless presented in so lucid and attractive a manner as to impress vividly the commonest imagination.

The gift of translating the high questions of science into popular forms of expression, without sacrificing accuracy and introducing error, is a very rare one among scientific men, but Professor Huxley possesses it in an eminent degree : his lectures are models of their class.

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LECTURE I.

THE PRESENT CONDITION OF ORGANIC NATURE.

WHEN it was my duty to consider what subject I would select for the six lectures which I shall now have the pleasure of delivering to you, it occurred to me that I could not do better than endeavour to put before you in a true light, or in what I might perhaps with more modesty call, that which I conceive myself to be the true light, the position of a book which has been more praised and more abused, perhaps, than any book which has appeared for some years ;-- I mean Mr. Darwin's work on the "Origin of Species." That work, I doubt not, many of you have read; for I know the inquiring spirit which is rife among you. At any rate, all of you will have heard of it,-some by one kind of report and some by another kind of report; the attention of all and the curiosity of all have been probably more or less excited on the subject of that work. All I can do, and all I shall attempt to do, is to put before you that kind of judgment which has been formed by a man, who, of course, is liable to judge erroneously; but at any rate, of one whose business and profession it is to form judgments upon questions of this nature.

THE PRESENT CONDITION

And here, as it will always happen when dealing with an extensive subject, the greater part of my course -if, indeed, so small a number of lectures can be properly called a course-must be devoted to preliminary matters, or rather to a statement of those facts and of those principles which the work itself dwells upon, and brings more or less directly before us. I have no right to suppose that all or any of you are naturalists; and even if you were, the misconceptions and misunderstandings prevalent even among naturalists on these matters would make it desirable that I should take the course I now propose to take,-that I should start from the beginning,-that I should endeavour to point out what is the existing state of the organic world-that I should point out its past condition-that I should state what is the precise nature of the undertaking which Mr. Darwin has taken in hand; that I should endeavour to show you what are the only methods by which that undertaking can be brought to an issue, and to point out to you how far the author of the work in question has satisfied those conditions, how far he has not satisfied them, how far they are satisfiable by man, and how far they are not satisfiable by man. And for to-night, in taking up the first part of this question, I shall endeavour to put before you a sort of broad notion of our knowledge of the condition of the living world. There are many ways of doing this. I might deal with it pictorially and graphically. Following the example of Humboldt in his "Aspects of Nature," I might endeavour to point out the infinite variety of organic life in every mode of its existence, with reference to the variations of climate and the like; and such an attempt would be fraught with interest to us all;

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