

The Ascent of Man.

THROUGH the centuries a philosopher here and a naturalist there toyed with the notion that man was somehow linked by nature with the animal kingdom, but the notion lacked concreteness and was not taken seriously. Then came Charles Darwin, first with a theory of the evolution of organic beings which involved the ancestry of man, and sixteen years later with a cumulative study ("The Descent of Man," 1871) which clinched his argument, and could no longer be ignored. Man took his place at the summit of the tree of organic evolution, and as the topmost branch draws the lightning, so the ancestry of man became the target upon which were concentrated the thunder-bolts of a fierce opposition. Until then, the battle of evolution had been waged upon a long front, but no sooner had the 'origin of man' entered the field than the zone of fiercest combat became narrowed, and to believers in the old creed the descent of man became the salient by the fate of which the whole long front of evolution was to stand or break.

Half a century has come and gone since then; new facts have accumulated and been assimilated, and while evolution has won its battle and become part of the stock-in-trade of the world's thought, a sporadic fight still wages about the isolated salient of man. That it is no mock combat is shown by the numbers of combatants who rushed to the support of the Fundamentalist position in the United States of America a short time ago, and any one familiar with the attitude of mind of the average Briton must be aware of the latent hostility which still survives towards the idea that, in popular phrase, 'man sprang from a monkey,' and of the satisfaction with which the emergence of each new scientific squabble regarding interpretation is hailed as the rift indicating the approaching dissolution of the whole.

At the present moment the critical attitude towards the reality of human evolution is at the top of one of its periodic swings. The reason for the fresh recrudescence of opposition can be easily traced. Charles Darwin's statement of the doctrine of evolution fell upon a scientific world which had been groping for light, and after the first fierce clash with the 'die-hards' of the old order, the grandeur of his concept, its plain logic and simplicity, lulled the scientific world into a stupor of complacency. Biologists accepted the Darwinian revelation; they rushed to weave their fresh examples into its mesh, and with facile interpretation naturalists, profes-

sional and amateur, explained with satisfaction the evolutionary significance of each and every structure as it came to their notice. It must be remembered that Darwin laid the weight of his argument upon the structures of organisms, and passed lightly over the vital problems of functional adaptation and of the correlated development of structures, the prime importance of which is now becoming manifest.

However, the first inhibiting glamour of a great thesis wore off. The study, especially of variation, heredity, and the correlation of structures and activities, led to a critical examination of Darwin's conclusions; and while the doctrine of evolution has never been gainsaid, one and another has arisen to show that the course of evolution has not been determined exclusively or mainly by the natural selection or the struggle for existence upon which Darwin laid stress. Two recent works of different character may be cited as illustrating the critical attitude of scientific workers towards natural selection, both, strangely enough, founded upon the study of fishes—Berg's "Nomogenesis" (1926) and Kyle's "Biology of Fishes" (1926).

This scientific revolt against the easy acceptance of 'Darwinism' had already gained much ground when it compelled the attention of the people by the publicity given to Bateson's address to the Toronto meeting in 1921 of the American Association for the Advancement of Science, and by the directness and vigour of his attack. The disturbance of accepted theories and ideals by the long years of war had prepared the ground. The popular mind leapt to the conclusion that the apparently established belief in evolution had been shaken, and the critics of the simian origin of man rushed to the fray. Typical of their statements was the contribution of a prominent Boston pastor to an American newspaper, in which he gave the names of "some scientists who at least call in question the loudly asserted proof of evolution," and the names included those of J. P. Lotsy, W. E. Ritter, Paul Kammerer, and E. W. MacBride! Of course, the pastor and his sympathisers were mistaken. These men of science had made their declarations with clearness and in full knowledge of the implication of their words. It was only a thoughtless misinterpretation or the blindness of bias which construed their attacks and those of Bateson, Morgan, and the rest, into an onslaught upon the great truth of evolution or descent by modification, instead of, as they really were, critiques of the method—natural selection—by which Darwin supposed evolution to have worked its way.

Mistaken though the reading of scientific progress was, it is this mistake which has given new life to the present-day attacks upon evolution, and has induced doubts in many minds, unfamiliar with the trend of scientific achievement, regarding Darwin's view of man's development, and especially of the merging of human ancestry in a common stock with the forerunners of the simian apes.

A restatement of the position in the light of modern knowledge—a simple, convincing statement, unencumbered by detail and side-issues, vouched for on the word of authority—would serve a very useful purpose at the present time. We are glad, therefore, that Sir Arthur Keith has chosen the subject of "Darwin's Theory of Man's Descent as it stands to-day" as the theme of his presidential address to be delivered at the Leeds meeting of the British Association next week. No man is better qualified than Sir Arthur to meet the need of the time—by training, experience, prestige, and by the touch of fervour and imagination which he has carried from northern Scotland. Though the address will be delivered to a body of men and women familiar in the main with the scientific mood and the general conclusions of science, and enlightening as it is sure to be, can, therefore, scarcely do more than confirm conviction, yet it will reach a wider audience through wireless and the press, and may be expected once again to focus attention throughout the English-speaking world upon the essential verities of man's ascent, and place a fresh strain upon the incredulity of unbelievers.

Language and Culture.

Die Sprachfamilien und Sprachenkreise der Erde. Von Pater W. Schmidt. (Kulturgeschichtliche Bibliothek, herausgegeben von W. Foy. Reihe 1: Ethnologische Bibliothek, Band 5.) Pp. xvi + 596. Atlas von 14 Karten. (Heidelberg: Carl Winter's Universitätsbuchhandlung, 1926.) 42 gold marks.

THIS work falls into two parts, of which the first contains an enumeration of the languages of the world under more or less accepted headings, but an exception to the general rule is made for what are commonly called the Sudanic languages, for which two wholly inconsistent schemes are printed, one by Delafosse, the other by Drexel. The second part consists of a discussion of the distribution of certain features of phonetics, grammar, and syntax, followed by a reclassification of the languages on the basis of the data in question; the primitive position of the dependent

genitive is then dealt with, together with the causes which brought about a change, and finally the relation of linguistic to cultural areas is discussed.

No final verdict can be passed upon the book until specialists for each area have sat in judgment and accepted or rejected, so far as they concern their own special provinces, the theories put forward; but whatever criticism in detail may be launched at the author's head, the work will remain as a great achievement, truly remarkable as the product of one man. Perhaps no one but Pater Schmidt would have had the courage to attempt it, or, if he attempted it, to bring it to a successful conclusion. For the author is far from retraversing well-trodden paths; he has opened a vista of new lines of research which cannot fail to attract many workers.

Where so much turns upon contact between different groups, it is of course essential to have a thoroughly accurate topographical basis for the theories; the linguistic data must be as complete and accurate as possible; and the conclusions must be wholly without ambiguity. To what extent these three essentials have been attained, so far as one area is concerned, will be made clear in the sequel. It is only fair to state that the author in his preface invites criticism in detail and looks forward to a second edition free from the errors which are bound to appear in a pioneer work.

Following Drexel in the main, the author groups Sudanic languages under seven heads: Wule (that is, Ubanghi group), Ngo-Nke (Mande), Manfu (Kwa and Central), Kanuri, Nilotic, Bantoid, and Hausa; in the excellent atlas are shown the areas occupied by these groups and their zones of influence. Unhappily there are serious errors in the territory ascribed to the Mande and Kanuri tongues; Hausa extends three degrees too far north, ghost languages (for example, Gogo and Kandin) appear, and the treatment of the northern provinces of Nigeria is demonstrably almost pure guesswork. Over and above this, Gola is located in the middle of the Kru tongues and Bullom north of Konakry in a Susu area; and a non-existent range of Bantoid is shown south of the Mande group.

Topographical errors are not confined to the maps; Biafada is in the text located on the Senegal instead of the Rio Jeba; Wolof is put in the Senegal group; Serer, its immediate neighbour, forms with Kisi and Fula a north-east group; but Kisi lies far to the south near Gola, and Fula stretches in a series of groups, mostly small, from a