

Small Masorah, edited entirely from the MSS.; and 3. A kind of Concordance to the texts of the Masorah in the various editions of the Bible. The work is in a forward state of preparation, and will be published on the author's return from the land of Moab, whither he intends to proceed next month.

### Contents of the Journals.

The *Theologisches Literaturblatt*, the organ of the R. C. theological faculty at Bonn, is remarkable for the comprehensiveness of its contents and the impartiality of its criticism. The most important articles in the recent numbers are two by Dr. Reusch on works relating to the Old Testament (Nov. 21, Dec. 5), and a still unfinished one by Alfred von Reumont on Dean Hook's Life of Cardinal Pole (Dec. 5). The praise awarded in the former to Bleek's Introduction to the Old Testament, Schulz's Old Testament Theology, and Dillmann's Commentary on Job, and even, with some qualifications, to Hitzig's History of the People of Israel, is a proof of candour which is most encouraging. The latter article is mainly devoted to a narrative of those parts of Pole's life which were inadequately treated in Dean Hook's work. Several *lacune* are pointed out in the author's list of authorities; e.g. Albin's collection of the despatches of the Venetian envoys, most of the works of Beccadelli, and Ranke's *Englische Geschichte*, not to mention the stores of manuscripts which, even after Lämmers publication (neglected by Dean Hook), exist at Rome and elsewhere. Articles by Prof. Langen on some recent books on the Epistles, by Dr. Kössing on Pfannenschmid's *Das Weihwasser*, and by Michelis on Prantl's "monumental" History of Logic, are also well worth reading.

The *Theologisch Tijdschrift* for November contains papers by D. Loman on the composition of St. Matthew's Gospel, and by M. N. A. Rovers on 2 Cor. xii. 12, which the writer regards as interpolated. Also the usual reviews. C. P. von Tiele draws attention to two important but very obscure dissertations by Dr. A. Pfizmaier in the Transactions of the Vienna Academy, on the Tao doctrine of Immortality. It appears that this Chinese doctrine stood in the same connexion with the course of the celestial bodies as the Egyptian and the Turanian.

The *Literarisches Centralblatt*, Nov. 26, contains a severe review of Heinichen's new edition of his Commentary on Eusebius.

### New Publications.

- DELITZSCH, F. Commentary on the Hebrews. Vol. 2. Edinb.: Clark.  
 DELITZSCH, F. Paulus des Apostels Brief an die Römer in das Hebräische übersetzt u. aus Talmud u. Midrash erläutert. Leipzig: Dörffling u. Franke.  
 GESS, W. F. Christi Zeugniß von seiner Person u. seinem Werk. Basel: Bahnmaier.  
 HEINICHEN, F. A. Commentarii in Eusebii Pamphili historiam ecclesiasticam. Leipzig: Mendelssohn.  
 NITZSCH, C. J., Gesammelte Abhandlungen von. 1<sup>ster</sup> Band. (From the Theologische Studien u. Kritiken.) Gotha: Perthes.  
 RITSCHL, A. Die christliche Lehre von der Rechtfertigung u. Veröhnung. Erster Band. Bonn: Marcus.  
 RÖNSCH, H. Das Neue Testament Tertullians aus Tertullians Schriften reconstruirt.  
 SCHOLTEN, J. H. A Comparative View of Religions. Translated by F. T. Washburn. Boston, U.S.: A. Crosby and Damrell.

### Science and Philosophy.

Observations on the Geology and Zoology of Abyssinia, made during the progress of the British Expedition to that Country in 1867-68. By W. T. Blandford, late Geologist to the Abyssinian Expedition. With Illustrations and a Geological Map. London: Macmillan and Co., 1870.

THIS work is divided into three parts: Personal Narrative, Geology, and Zoology. The author is the Deputy Superintendent of the Geological Survey of India, who obtained permission from the Indian Government to accompany the Abyssinian Expedition; and he has given us a very clear account of the geology of the country visited, although this, the most valuable portion of his work, only occupies about one-eighth of the volume. Some very fine woodcuts (from photographs) give an excellent idea of the general character of Abyssinian scenery, and a large coloured geological and

physical map enables the reader to connect the external features of the country with the distribution of the several formations.

The greater portion of Abyssinia consists of an undulating table-land of 6,000 or 8,000 feet elevation. Above this rise numerous precipitous hills and mountains, often reaching a height of 10,000 or 12,000 and sometimes even 15,000 feet; while enormous ravines and gorges of many thousand feet deep, carry off the drainage to the Red Sea on the east, or to the Nile Valley on the west. The course of the British expedition lay, for about 300 miles in a north and south direction, along the central ridge or watershed of the plateau, and thus afforded great facilities for the study of its physical features and geology.

The fundamental rocks over a large part of Abyssinia are metamorphic, consisting generally of finely crystalline gneiss, but varying to a slaty rock in which the lines of original bedding are apparent. These form the mass of the table-land, and are exposed in every deep valley. Above 8000 feet the rocks consist mainly of bedded traps, while between these and the metamorphics are a series of sandstones and limestones. These latter are the only rocks that contain fossils, which prove them to be of jurassic age, and the sandstones probably belong to the same formation. The metamorphics are very much older, the dip being nearly vertical; and their surface had been greatly denuded before the sandstones and limestones were deposited horizontally upon them. The traps, which are various in character, and are in some places interbedded with clays and sandstones, are of the same or more recent age.

In the gneissic districts the hills are characterised by huge cliffs which have curved surfaces, and by crags which consist of more or less rounded blocks piled upon each other: these features depending upon the weathering of the rock, which takes place only in those cracks and fissures where the moisture can be retained. The strike of the rocks is north and south, and this has caused the ravines leading up to the plateau to run parallel to the coast of the Red Sea, and thus afford a gradual ascent to the interior. The horizontal beds of sandstone and limestone produce long ranges of cliffs along the sides of the valleys, as well as flat-topped hills, and by their varied colours—brick-red, lilac, grey, or ochreous—form a very characteristic feature in the landscape. The trap rocks, including trachyte, basalt, dolerite, and volcanic ashes, constitute the materials of all the higher mountains and abrupt rocky elevations of the plateau, including most of the Ambas or mountain forts of the natives. These traps probably once covered all the intervening country to the thickness of about 4000 feet, the whole of which, with the exception of isolated patches, has been removed by denudation.

Mr. Blandford is decidedly of opinion that the present form of ground in Abyssinia is wholly due to subaërial denudation. The great ravines, 3000 or 4000 feet deep, and often only about the same width, are certainly due to the action of rain and of the rivers that have flowed in them; while the terraced hill-sides exhibit forms due to the subaërial disintegration of the rocks of which they are composed. He believes that the comparative importance of fresh-water and marine denudation is quite misunderstood by English geologists, owing to the fact that they live in a country where the former is exceptionally weak, the latter exceptionally powerful. In tropical regions, on the other hand (which, it must be remembered, now constitute a large portion of the globe, a belt of 30° each side of the equator being about equal to the remainder of its surface), the reverse is the case. Tropical rainfall is not only much greater than with us, but it is generally concentrated into three or four months

instead of being distributed throughout the year, so that its denuding power over the surface of the country is enormous. During floods, which are of frequent occurrence, the rivers are liquid mud rather than water. The enormous amount of sediment thus carried down to the sea, acts as a barrier to marine denudation, and protects the coasts from destruction; while, where this does not occur, coral reefs answer the same purpose. The result is, that along the shores of tropical continents there are comparatively few signs of that extensive marine denudation which is so characteristic of the sea coasts in temperate and northern regions. If to this we add the consideration, that the climate of almost all the temperate zone has in past ages been more like that of the tropics, with intervening glacial epochs equally favourable to subaerial denudation, we shall be led to conclude that it is only by the study of the geology of the intertropical and glaciated regions combined, that we shall be able to obtain an adequate notion of the power of meteorological causes to mould, to furrow, and to destroy the surface of great continents. It is to be hoped that the Geological Survey of India will undertake to furnish a basis for an estimate of the rate of denudation, by accurately determining the amount of sediment carried down annually by the chief rivers of India, not only at their outlets to the sea, but at several points of their course, especially at their exit from the mountains into the plains.

The lakes of Abyssinia are a very puzzling problem. The only one Mr. Blandford was able to examine was Lake Ashangi, which is 103 feet deep, while the rim of the rock-basin rises about 150 feet above the water. No signs of glacial action were discovered anywhere in Abyssinia; but this may perhaps be due to the rapid disintegration of the basaltic rocks which form so much of the more elevated parts of the country.

The volcanic hills and cones which abound on the shores of the Red Sea, and are sparingly represented on the west side of Annesley Bay, are mostly of recent date, while in some places the disturbance of sedimentary beds, interstratified with volcanic products, indicates comparative antiquity; but no fossils have been found by which their age can be determined. Geologists will find suggestive remarks on many other interesting or disputed questions, on which Mr. Blandford's experience in India often throws light. We may indeed expect, that the science of geological interpretation will be much advanced by the observations of the Indian surveyors, who have the great advantage of studying the denuding action of rain and rivers in a country where these agencies are so much more powerful than they are with us, and where they produce effects far beyond the power of the more placid meteorology of Europe.

The zoological part of the work consists of a systematic catalogue of the species of mammals, birds, reptiles, and molluscs collected, with notes on the synonymy, and on the habits of the species. There is also a short introduction, giving an account of what has been done by previous naturalists, and discussing the range of the species in altitude. The catalogue occupies considerably more than half the volume, which is thus rendered more bulky than necessary, and less convenient for reference, as well as less interesting to the general reader. The personal narrative abounds with notes on the quadrupeds and birds met with; and if all the obtainable information on their habits had been there incorporated, the catalogue might have been printed much more compactly in an appendix (with references to the narrative), and the weight of the volume considerably diminished. A striking example of the inconvenience of the arrangement adopted is seen at p. 102, in the mention of

descending the pass from Senafé on the return journey, at from 2000 to 5000 feet elevation. Not a word being here said of the size, appearance, colours, or affinities of this uncouthly named bird, the reader turns to the index, in order to find it in the catalogue and learn something more about it; but the name is not to be found there. Even if he turn over the 180 pages of the catalogue of birds, and runs his eye down the specific names, very clearly printed in large type, it is still not to be found; and it is only by going through the synonyms, that he at length discovers it under the name of *Grandala leucogaster*, and can get at what the author has to say about it.

Mr. Blandford is evidently a close observer of birds, and thinks for himself as to their affinities. His opinions on points of difficulty are therefore worthy of attention. The sternum of *Indicator*, he tells us, resembles that of the Barbet and Coly, and the bird was observed clinging to the stems of trees, as the Barbets occasionally do. The Colies are placed between the Turacos and the Rollers, but the nest—"a small platform of sticks in a thorny bush"—would remove it widely from both these groups; and Mr. Blandford himself remarks that "the toes are very different from those in other Scansorial Insectores, and even from those of the Plantain-eaters." The Timalidæ are classed with the Crateropidæ, and such genera as *Drymæca*, *Cisticola*, *Prinia*, and *Orthotomus*, are included in the same family. The Larks follow the Warblers, and include the Wagtails in a single family group.

The list of birds reaches the large number of 293 species; and as the author has taken great pains to make himself acquainted with the literature of the subject, it is rather a pity, while devoting so much of his book to a mere catalogue, that he did not include all the species known to inhabit Abyssinia, and thus make it a complete *résumé* of our knowledge at the date of publication.

Good coloured figures are given, of seven new or rare species of birds and of six of the limestone fossils. The author appears to have observed and collected assiduously during his eight months' journey. He has carefully elaborated his materials, and has consulted the writings of previous travellers in Abyssinia; and the result of his labours is an important contribution to the natural history of the country.

ALFRED R. WALLACE.

**Kuno Fischer's Interpretation of Kant.** [*Kuno Fischer und sein Kant. Eine Entgegnung*, von Adolph Trendelenburg.] Leipzig: Verlag von S. Hirzel, 1869.

**Anti-Trendelenburg.** Eine Duplik von Kuno Fischer. Jena: Hermann Dabis, 1870.

**Kant's Transcendental Ideality of Space and Time.** [*Kant's transcendente Idealität des Raumes und der Zeit.* Von Dr. Emil Arnoldt.] Königsberg: Albert Rosbach, 1870.

A LONG controversy which has been going on with alternate replies in the successive works of Professors Fischer and Trendelenburg has come to a final explosion of bitter personalities, and unsparing polemic in the two pamphlets first named at the head of this article. I say final, for the grounds of difference have now been so thoroughly explained, that it is scarcely possible for anything of importance to be added on either side. The substantial gains out of it all are, on the one hand, some new illustration of difficult points, in the philosophy of Kant, and on the other hand a complete and convincing proof that a certain bye-way of philosophy which Trendelenburg had contrived for himself in his *Logical Investigations*, is really a blind way, that leads to nothing.

The question at issue related in the first instance to the validity of Kant's well-known view as to the subjective origin and character of the intuitions of space and time. But in