

GONDWANA SYSTEM (not, as I wrote, "Gondwana Series").

a. *Upper portion of the Gondwana System.*

"Kachh-Jabalpúr Group" (not Kachh Series, as I wrote); "Rajmahal Group" (not, as I wrote, Rajmahal Series),<sup>1</sup> etc.

b. *Lower portion of the Gondwana System.*

"Panchet Group"—"Damuda Series" (not, as I wrote, Damuda Group, as it consists itself of several groups, as, Kamthi-Ranigunj group, Iron-shales, Barakur Group: this, however, only stratigraphically).

"Talchir Group" (considered by me to be a lower portion of the Damuda Series).

In the chapter on the fossils of the Panchet Group (*J. c. p.* 486) I have to add that Prof. Huxley, although considering the vertebrate fossils as probably Triassic, found also some affinities with certain Permian forms; but the closest connexion is still with the Triassic (?) South African reptilian remains. And here, in India, we have, as additional evidence, throughout a Triassic (Keuperic) Flora, which leaves little doubt that our Panchet Group, in comparison with already known formations, is to be considered as what is termed in Europe "Keuper." This, of course, is not intended to prove that both are contemporaneous. It proves only identity of forms, and therefore the same homotaxial position.

I write this note especially because it should not seem that I have intentionally left out half of the arguments. I thought, however, to have said enough by referring to Prof. Huxley's important paper on the reptilian remains from the Panchet group, where he has himself so thoroughly discussed their affinities.

There are also some serious errata in the text, which should be corrected, namely:

On p. 485, line 5, for "with European Triassic forms," read "European Jurassic beds" (for the only beds in Kachh are Jurassic).

On p. 487, line 12, omit "perhaps" (because there are certainly similar forms in Africa).

On p. 489, line 33, for "*Pteroph. Carterianum*," read "*Pteroph. Morrisianum*."

CALCUTTA, 14th Dec. 1876.

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DR. FEISTMANTEL'S PAPER ON THE GONDWANA SERIES.

SIR,—Even a scientific controversy, if prolonged, tends to become less amicable than it should be, and I shall therefore not attempt to reply at length to Dr. Feistmantel's remarks in his paper on the Gondwana Series of India, published in the GEOLOGICAL MAGAZINE for November, 1876. I will only beg that any one who feels interested in the subject will do me the honour of consulting my original paper in the Records of the Geological Survey of India for 1876, pt. iii. pp. 79–85, because I do not think that a just idea of my views or of the objects of my paper will be derived from

<sup>1</sup> This was the former collective name for the whole upper portion of the Gondwana system, as used by Dr. Oldham; but there are certainly several different groups.

Dr. Feistmantel's criticisms. Dr. Feistmantel suffers from the great disadvantage of writing in a foreign language, and I think he expresses himself sometimes more forcibly than he intends.

The object of my paper was to point out that Dr. Feistmantel had overlooked some of the arguments which had mainly influenced the opinions of those of his colleagues who had written upon the age of certain portions of the Gondwana series. I may have been in error on certain points, as on the question of the occurrence of Cycads in the Damudas, but I still think that Dr. Feistmantel's enthusiasm has led him to overestimate the arguments in favour of his own views, and to undervalue those which are opposed to his conclusions. I have no wish to insist upon an Upper Oolitic or Post-Oolitic horizon for the plant-beds of Cutch, and I am far from considering the Palæozoic age of the Damuda beds as proved; but I think that Dr. Feistmantel has argued, however ably, on one side of the case only, and that it was a mere act of justice to his predecessors to explain why they had come to a different conclusion.

My mistake about the occurrence of the *Cycadaceæ* requires a few words of explanation, the more so that Dr. Feistmantel evidently considers it of the greatest importance, for he calls attention to it in a marked manner no less than three times in two pages, so as to produce the impression that I had committed a most absurd blunder. I wrote, "Cycads have not hitherto been found in the latter," *i.e.* the Lower Gondwana rocks. Dr. Feistmantel replies, "Cycadaceous plants are not absent at all"; and he proceeds to enumerate three species, and he adds in a footnote referring especially to me, "they (*i.e.* Cycads) were indeed known long ago." Now what are the facts? Two of the three species enumerated by Dr. Feistmantel, *viz.* *Nöggerathia Vosgesiaca* and the *Glossozamites*, were, to the best of my knowledge, not even detected by Dr. Feistmantel himself till after my paper was written; certainly no notice of them was published, nor had Dr. Feistmantel called my attention to them. The third species, described by Sir C. Bunbury as *Nöggerathia Hislopi*, was, if I am not mistaken (I am writing at a distance from all books of reference), referred with doubt to the genus; and *Nöggerathia* certainly was not formerly classed as a Cycad; still Dr. Feistmantel may be right in referring it without any doubt to the *Cycadaceæ*, and all I have to say in apology is that I was not aware that the Cycadaceous nature of the genus had been ascertained. I think this explanation is necessary, and it is to be regretted that Dr. Feistmantel, by omitting to state all the facts, has compelled me to make it.

W. T. BLANFORD.

CAMP, SIND, February 1st, 1877.

#### MR. CARPENTER ON THE PLANET MARS.<sup>1</sup>

SIR,—In the first paragraph of the first article of your last issue, Mr. Carpenter has exactly inverted the proper descriptions of Mr. Croll's and Mr. Murphy's theories. This no doubt was a slip of the pen. But when he goes on to say that it has occurred to him that he has

<sup>1</sup> See the March Number, p. 97.