

VIII.—*Proceedings of the Asiatic Society.**Wednesday Evening, the 4th November, 1835.*

Captain PEMBERTON, Senior Member present, in the chair.

The Hon'ble Sir BENJAMIN MALKIN, Kt., and CHARLES HAY CAMERON, Esq., proposed at the last meeting, were balloted for, and unanimously elected Members of the Society.

Read a letter from Lieut. W. C. BAKER, acknowledging his election as a member.

Read a letter from THOMAS DICKENSON, Esq., Secretary Bombay Branch of the Royal Asiatic Society, acknowledging the receipt of a copy of the Index to the Asiatic Researches.

Read a letter from CHARLES KONIG, Esq. Foreign Secretary to the Royal Society of London, acknowledging the receipt of a copy of M. CSOMA DE KÖRÖS's Tibetan Grammar and Dictionary.

Library.

The following books were presented:

Proceedings of the Geological Society of London, No. 39—*by the Society.*

Madras Journal of Literature and Science, No. 9, October 1835—*by the Madras Literary Society.*

A Treatise on the manufacture of Saltpetre, descriptive of the operations and proper plans to be used for the manufacture of Culmee and Cooteah—*by Mr. J. Stephenson, and presented by him.*

The Indian Journal of Medical Science, No. 23—*by the Editors.*

Meteorological Register for September, 1835—*by the Surveyor General.*

The following books were received from the Oriental Translation Fund:

The Chronicles of Rabbi Joseph Ben Joshua Ben Meir, the Sphardi. Translated from the Hebrew *by C. H. F. Bialloblotzky*, vol. I.

Miscellaneous Translations from Oriental languages, vol. 2nd.

Les Aventures De Kamrup, par M. Garcin De Tassy.

Harivansa, or Histoire de la Famille de Hari, part 1st—*by M. A. Langlois.*

Ethiopic Didascalia, or the Ethiopic version of the Apostolic Constitutions received in the Church of Abyssinia, with an English translation—*by Thomas Pell Plat, Esq., F. A. S.*

Nipon o Dai itsi Ran, ou Annales des Empereurs du Japon, 1 vol.—*by M. J. Klaproth.*

Lardner's Cabinet Cyclopaedia, Swainson's Animals.

A piece of ancient Hindu Sculpture, representing a female (goddess), with a child, walking, dug up in the ruins of Canouj, was presented by Colonel STACY.

Literary.

Read a letter from W. H. MACNAGHTEN, Esq., Secretary to Government, Political Department, forwarding on behalf of the Honorable the Governor General of India in Council, a copy of notes taken by Captain WADE, relative to the territory of Iskardoh, and of his correspondence with the ruler of that country.

A memoir on the mountain tribes, on the extreme N. E. frontier of Bengal, by J. McCOSH, Civil Assistant Surgeon at Goalparah—*presented by the Author.*

Extracts from both these papers were read.

Physical.

The following extract of a private letter from Captain CAUTLEY to the Secretary was read, noticing the discovery of further fossils in vast quantity in the Sewálik range.

" A trip to the Sewálks, near the Pinjore valley, lately, has introduced us to the *Anoplotherium*?* in a perfect line of six molars on one side, and four ditto in the other side of upper jaw. I say *Anoplotherium*, for the rear molars have the distinguishing mark in the insulated mamilla pointed out by CUVIER†, as that which distinguishes the *Anoplotherium* from the *Palæotherium*, although the position of the molar bone, part of which is distinguishable, appears to differ from that of the former animal, and gives it a greater resemblance to the *Palæotherium*; this is a beautiful fossil, and dug out: but I must give you a history of the last week.

" I had to visit Dádúpur on canal matters, and found both BAKER and DURAND as eager as myself for a short excursion into the Sewálks; and as all our parties were out, we determined on visiting those most westerly, who were working at a village called Moginund (a common name apparently) in the Ramgurh district, about 50 miles W. of Dádúpur: our route took us through Sidaura, Naraingurh, Mír ká Gurhi, Raingurh, to the village of Moginund, which lies in a nook of these little hills, open only on the west: here we remained three days, returning to Dádúpur by regular marches, and visiting Khet Púrali, another little, village close under the hills on our way, as near this village is a stratum of a clay conglomerate, or marl full of testaceous remains chiefly Bivalves (varieties of *Unio*,) reptiles, and fish; of the former, you have already specimens, and with the latter, you shall be provided in due course. The country on this route was open and well cultivated, rice in great abundance, and cultivation of all sorts up to the foot of the hills. These hills differ much in appearance from those between the Jamna and Ganges; the abruptly scarped precipices, and mural cliffs, with the huge strata of shingle, are here replaced by a comparatively low series of undulating hills, consisting of an eternal succession of sands and clays, with here and there beds of a coarse sandstone, or fine shingle conglomerate, accessible at all points excepting those where slips have taken place, and free from jungle and high vegetation, excepting in hollows, and the lines of ravines skirting the tributaries to the main outlets of drainage.

" The hills were covered with fossils like all the others (how they could have escaped observation before, must remain a source of wonder). Mastodons and hippopotamus's remains looking one in the face at every step! Amongst the remains collected were those of the *rat* and *porcupine*, too perfect to admit of any doubt. The specimens of each consisting of the *palate*, with the two lines of *molars*!!! Although three days at this place, and superintending my digging parties, I must confess my inability to decide strictly whether we were working in a *stratum* or in *debris*: this may appear strange to a person who has been unaccustomed to examine and decide on the position of strata, but will be understood and appreciated I imagine by any one who has had his attention strictly brought to bear upon the point. Shrubs, inequalities of surface, ravines, et hoc genus omne, all and each of them battling every inch! I am however inclined to consider that we had both, and that we were working in both a soft sandstone stratum, and also in a superficial coating of debris. A great number of perfect bones, the whole series of a leg for instance, jaw bones, and other remains were fairly found and dug out from the rock; at other places, huge masses of hard rock were found imbedded in the softer rock or soil, the said masses consisting in most cases of agglutinated bones: the shape of these masses give an appearance of their having fallen *formerly* from some parent rock, and being *now* found as debris; but the circumstance of finding the connected joints of animals is altogether in favor of the excavation being in the stratum in which they were originally deposited. The question does not appear to me of much consequence, as the bones are not rounded by attrition, and are as sharp and perfect in their form and outline, as when belonging to the living animal, although frequently broken, and jammed together, as would be the case in a skeleton or a mass of bones being forced together in an upheavement of the country upon which or in which they were collected.

" I may remark that our excavation was not on the outcrop of the strata, but in the slope, and the working parties were successful in their operations at many points on the whole surface of that side of the mountain. This deposit appears to be altogether wanting in the mastodons, reptiles, and hippopotami: the remains at present dug out consist of portions of *anoplotherium* or *palæotherium*, rhinoceros, hog, horse, ruminants of the most gigantic dimensions, with those of the smaller classes, carnivora, hyæna, canis, tiger (or lion), and a small species of a feline animal, a very perfect cranium of which is in the possession of Lieuts. DURAND and BAKER. Many

* This fossil is either the *Anoplotherium*, or a new variety of the *Palæotherium*, and if it was not for the insulated mamilla, referred to, its classification amongst the latter genera would, I suspect, be undoubtedly correct. The discovery of more perfect remains of the head, will settle this point at once.

† Volume iii. p. 21. *Ossemens fossiles*.

of the bones of these animals are coming out perfect, and some have been found, as I before mentioned, in connected joints!

“ With reference to the Sivatherium, I regretted much my inability to obtain the dimensions of one of the most superb fossils, I suppose that ever was found; it was unfortunately discovered and excavated by a party of work-people employed by a gentleman with whom I was unacquainted, and although I saw the fossil when in the rock, I was prevented from getting the measurements afterwards. This specimen consisted of the femur and tibia, with the tarsal, metatarsal, and phalanges of one of these gigantic ruminants that time and patience will and must introduce us to! In the bones of all the animals discovered, there are differences from those of their existing congeners that will be pointed out hereafter; it may be sufficient here to advert to the fact. The teeth that are found at this spot are beautifully perfect, and from the softness of the matrix or rock in which they are imbedded, easily cleared and exhibited. There is an evident grouping of animals throughout! The hippopotami, mastodons, &c. which in some localities are in such abundance, are in others wanting; their place being occupied by carnivora, ruminants, &c. The testaceous remains as yet found have been accompanied by reptiles and fish. We have in fact an extended tract of country upheaved, and the different groups as might be expected in their natural habitats!! It is hardly a month since I attempted, in a note on the Gavial of these hills, to enumerate the probable proportions of animals that existed on this tract! During this short period, we have added another family, Rodentia, to our catalogue, and another genus of the Pachydermata, besides the splendid additions to our former list in the further elucidation of those already found, in the discovery of more perfect specimens of bone, especially of the horse, rhinoceros, and the larger ruminants!! You will join with me in an exclamation, which has been upon my lips, day after day, since the discovery of the first fragment of bone—‘ *What shall we have next?* ’ ”

1. A small, but splendid, collection of stuffed birds, presented by Captain PEMBERTON.

As they were received only the same morning, the Curator deferred his report until the next meeting.

2. A species of *Pteromys*, presented by Captain DAVIDSON, from Goalparah, Assam.

3. A collection of Mammalia and Birds from Goalparah, Assam, presented by Dr. McCOSH. The collection consists of the following specimens:

Mammalia.

- 1.—*Mungusta Mongoz.*
- 2.—*Pteromys.*
- 3.—*Moschus Memina.*
- 4.—*Moschus Memina*—(Skeleton).

Birds.

- 1.—*Alcedo Bengalensis.*
- 2.—*Dicrurus Cærulescens.*
- 3.—*Turdus Saluaris.*
- 4.—*Oriolus Melanocephalus.*
- 5.—*Eudynamys Orientalis.*
- 6.—*Buceros Homrai.*
- 7.—*Buceros Malabaricus.*
- 8.—*Garrulus Bengalensis.*
- 9.—*Polypleitron Hardwickii.*
- 10.—*Phasianus Gallus*—2 male and 1 female specimens.
- 11.—*Phasianus Lineatus.*
- 12.—*Gallinale Porphyris.*
- 13.—*Fuligula Caryophyllacea.*

The *Buceros Homrai* is considerably larger than the one described by Mr. HODGSON in the 2d part, 18th vol. Researches of the Asiatic Society. From tip of the bill to tip of the tail, Dr. McCOSH's specimen measures five feet two inches; that of Mr. HODGSON's is only four feet 5½ inches in length: and by comparing the bill and casque with two of the Nipal bird, in the cabinet of the Curator, the inferior size of the latter is very apparent. There is, belonging to Captain PEMBERTON, a specimen now upon the table, of the bill and casque of the same bird, from Chittagong, even larger in size than that from Assam.—CUR.

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OF MARSEILLES.

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“ It will flourish, if naturalists, chemists, antiquaries, philologers, and men of science, in different parts of *Asia*, will commit their observations to writing, and send them to the Asiatic Society at Calcutta; it will languish, if such communications shall be long intermitted; and will die away, if they shall entirely cease.”

SIR WM. JONES.



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