

- II. Extract of a Letter from Professor KREIL of Vienna, to Major-General SABINE, Treas. and V.P.R.S., dated Nov. 26, 1858. Communicated by Professor W. H. MILLER, For. Sec. R.S.

“I am returned after an absence of nearly six months, during which I have been travelling in the Danubian Principalities, in Turkey in Europe, and along the south-west and north coasts of the Black Sea, in order to make magnetic observations, and to determine more accurately the geographical position, as well as the magnetic declination, of many points of the coast.”

- III. “Fossil Mammals of Australia (Part I.). Description of a mutilated skull of a large Marsupial Carnivore (*Thylacoleo Carnifex*, Ow.), from a conglomerate stratum, eighty miles S.W. of Melbourne, Australia.” By Professor R. OWEN, F.R.S., &c. Received September 18, 1858.

In this paper the author gives a description of a fossil skull and certain of the teeth of a quadruped of the size of a lion, in which he points out the characters indicative of its carnivorous habits and of its affinities to the marsupial order.

The large size of the temporal fossæ, meeting to form a low crest on the parietal bone, and bounded behind by a strong occipital crest; together with large carnassial teeth in both upper and lower jaws, evince the carnivorous habits of the extinct species. Its marsupial nature is, in the author's opinion, demonstrated by the following cranial structures:—A large vacuity in the bony palate; a proportionally large lacrymal bone extending upon the face and perforated by the lacrymal canal, anterior and external to the orbit; three external precondyloid foramina; the perforation of the basisphenoid by the entocarotid canal; the great interval between the foramen ovale and foramen rotundum; the separation of the tympanic from the petrous bone; and the development of the ‘*bullæ auditoria*’ in the alisphenoid; the position of the outlet for a vein from the lateral sinus behind and above the root of the zygoma; finally, the low and broad occiput, and the very small relative capacity of the brain-case.