

enough commingled in one and the same accumulation. It is to account for this remarkable commingling that a large portion of my book was written.

3. Mr. Dawkins seems to be ignorant of the fact that the ossiferous deposits of Mont Perrier occur on two separate and distinct horizons. The lower bed, characterised by the presence of *Mastodon arvernensis* and other extinct forms, is unquestionably true Pliocene. It is overlaid by the "pumiceous conglomerate," with its far-transported and glacially-striated erratics. Upon the denuded surface of this well-marked morainic accumulation rests the upper bed, which contains a very different mammalian fauna—*Elephas meridionalis*, *Rhinoceros leptorhinus* (Cuv.), hippopotamus, tapir, horse, cave-bear, hyæna, hedgehog, &c. The flora associated with this fauna is not Pliocene but Pleistocene. The upper bed is overlaid in turn by a newer set of glacial moraines and erratics. The list of Upper Pliocene Mammalia from Mont Perrier and Issoire, given by Mr. Dawkins in his "Early Man in Britain," consists of a "hash-up" of the species derived from those two separate and distinct horizons.

4. The most recent list of mammalia from the lignite-beds of Lefte and Borlezza is quoted by me from Prof. Stopanni, on the authority of Dr. Forsyth Major. All the species in that list, without exception, have frequently occurred in Pleistocene beds, the age of which is generally admitted. The plants and shells associated with these species are all likewise Pleistocene forms. Moreover, as Stopanni has demonstrated, and as I can testify, the stratigraphical evidence proves that the beds pertain to the Glacial series. Prof. Mayer, no mean authority, has shown that the upper beds of the so-called Pliocene of the Val d'Arno (containing *Elephas meridionalis* and hippopotamus) are not the equivalents of the marine Pliocene, as has hitherto been the belief of paleontologists, but must be classified as Quaternary or Pleistocene.

5. All that I say with regard to the age of the skull of Olmo occurs on p. 318 of my book, and what I say is simply this, "It pertains to Pleistocene times—to the period during which *Elephas meridionalis* belonged to the European fauna." I do not assert its Interglacial age. It may be either Preglacial (*i.e.* early Pleistocene) or Interglacial as the Lefte beds are.

I was not aware that geological classification is always based on zoology alone. I am under the impression that botanical evidence, when it can be obtained, is not despised, and that stratigraphical and other physical evidence is not usually ignored. In trying to work out the historical geology of the Pleistocene, I have considered the paleontological as fully as the physical evidence. Mr. Dawkins would have me rest contented with that of the mammalia alone, as interpreted by himself.

Perth, February 19.

JAMES GEIKIE

As my name has been imported into the controversy between Prof. Dawkins and Dr. James Geikie, will you kindly permit me to state that I am quite prepared, after re-reading the account given by Dr. Geikie of the Victoria Cave, to accept all responsibility for its correctness.

Without entering into the general question, in the particular case of the Victoria Cave the evidence for the contemporaneity in the same area of the reindeer and hippopotamus is not very cogent; a review of all the evidence from that source indeed points the other way. The specimen mentioned by Prof. Dawkins was, according to his Report,¹ found in digging a shaft, a method of exploration unfortunately at that time (1872) employed by the Committee. The subsequent explorations, which were not conducted in this manner, but by carefully removing the deposits, layer by layer, to prevent any possibility of accidental mixture of the remains, gave abundant evidence of reindeer in the upper beds, but not any satisfactory evidence of its presence in the lower beds, containing *Hippopotamus*, *Elephas antiquus*, *Rhinoceros leptorhinus*, &c. This is a point, amongst others, to which, as Reporter to the Committee, I paid careful attention, and the details were impartially given in the Reports.² The absence of reindeer from a lower bed, the only one containing the same fauna in the Creswell caves explored by the Rev. M. Mello and Prof. Dawkins, is worthy of note as bearing on the same subject.

As regards the evidence for the antiquity of man from the Victoria Cave, Dr. Geikie has fairly stated both sides of the question, and he certainly does not deserve the accusation that

¹ Report on the Victoria Cave; British Assoc. Report, 1872, Sections, p. 179.

² Victoria Cave; British Assoc. Reports, 1874-78.

he "has only called those witnesses which count on his side." Prof. Dawkins, in dismissing the whole of this evidence as "founded on a mistake," must be aware that he is using a convenient formula which can only apply fairly to a part of it, the doubtfulness of which has already been fully conceded. He entirely shelves other evidences which are the result of a long and careful exploration.¹

To state that he doubts their cogency would be to take a course of which no one would complain; but to say as if it were a matter of general agreement that they are "founded on a mistake," looks like an attempt to stifle discussion.

But his remarks are so obviously polemical that to most geologists they will probably carry more amusement and less conviction than the writer contemplated.

Hastings, February 19

R. H. TIDDEMAN

Les lettres d'Outre-mer

IN the Notes, published in NATURE of January 13, p. 254, the last paragraph gives, as a fact, an announcement of "the simplest post-office in the world" in Magellan Straits, as still in existence.

At least fourteen years ago there was published a graphic account of this unique establishment by the most eminent of all living French writers, M. Victor Hugo, who introduces the circumstance into his famous work of fiction, "Les Travailleurs de la Mer"; and ever since reading the account I have wondered where the great author obtained his circumstantial relation, which refers to the year 1823. Nor can I believe that such a system of oceanic exchange ever really was in existence, at least on the spot indicated, for a very good reason; that at the point indicated, viz. the neighbourhood of Port Famine, when the *Beagle* was there in 1834 (see Darwin's "Naturalist's Voyage," chap. xi.), "the Fuegians twice came and plagued" the crew; so that an open barrel would hardly be safe. Darwin, also, who ascended Mount Tarn, the most elevated point in this district, would surely have mentioned this famous barrel post-office, had it existed (?).

I am therefore curious to know whence the note in NATURE was compiled, but I fancy the account is apocryphal. That there were however other oceanic post-offices somewhat similar in principle is a fact in reality.

In 1763 Ascension was visited by the Dominican, Father Navarette, who speaks of it then as the "Sailor's Post-Office," "Mariners of all nations being accustomed at that time to leave letters here, sealed up in a bottle, in a certain known cranny of some rock, to be taken away by the first ship which passed in an opposite direction" (Mrs. Gill's "Six Months in Ascension," p. 61). And again in 1769 we find the following extract:—

"1769, Feby. 3-4

"Ascension island.
Bougainville.

Louis de Bougainville, Colonel of Foot and Commodore of the Expedition in the Frigate *La Boudouse*.

Arrd. and anchored in the North-west creek or 'Creek of the Mountain of the Cross.'

Anchorage according to Abbé la Caille.

7° 54' s.—16° 19' west, of Paris.

Variation 9° 45' NW.

Three creeks caught turtle.

N.E. creek. N.W. creek. English creek, S.W.

"In the afternoon the bottle was brought to me which contains the paper whereon the ships of every nation generally write their name, when they touch at Ascension Island.

"This bottle is deposited in a cavity of the rocks of this bay, where it is equally sheltered from rain and the spray of the sea. In it I found written the *Swallow*, that English ship which Captain Carteret commanded, and which I was desirous of joining.² He arrived here the 31st of January, and set sail again on the 1st of February; thus we had already gained six days upon him, after leaving the Cape of Good Hope. I inscribed the *Boudouse* and sent back the bottle."

At page 4 of Melliss' "Account of St. Helena (1875) is a wood-cut of the South Atlantic Post Office of 1645. Speaking of the island of St. Helena, Mr. Melliss says:—

"It became about this time—little more than a century after its discovery—a resort of Dutch and Spanish ships, as well as

¹ Victoria Cave Report, *op. cit.* 1877, pp. 218-220, and 1878; *Journ. Anthropol. Inst.* vol. vii pp. 166-173.

² *La Boudouse* caught up the *Swallow*, 23th February.