

occurred in North Germany of the association of the Hippopotamus, or any genus which would indicate a climate too warm for the reindeer, musk-ox, or lemming; so that it becomes more and more probable that the alleged association of the Mammoth (*E. primigenius*), in the valley of the Thames, with the hippopotamus and monkey (*Macacus pliocænus*), and a like mixture of the bones and teeth of the tichorhine and leptorhine rhinoceroses in the cliffs of Norfolk, may have arisen from confounding together the fossils of different deposits and periods, or from an intermixture, due to natural causes, of the fossil remains of more than one epoch.

Professor Owen remarks, that as the musk-buffalo has a constitution fitting it at present to inhabit the high northern regions of America, we can hardly doubt that its former companions, the warmly-clad Mammoth and the two-horned woolly rhinoceros (*R. tichorhinus*), were in like manner capable of supporting life in a cold climate.\*

To what part of the Pliocene Period the Cave animals of Great Britain should be chiefly referred, is still a vexed question. There seems, however, no reason at present to suppose any of them more ancient than the Norwich Crag; and many caves may have remained open during the glacial and post-glacial eras, while the fauna was gradually changing, so that the remains found in them may not always belong to strictly contemporary quadrupeds.

I have mentioned (p. 175) the occurrence in the suburbs of Rome of the remains of Elephants, and referred them to *E. primigenius*; but, according to Dr. Falconer, there is no well-authenticated example of this species having ever been met with South of the Alps. The specimens from Monte Mario, and other localities near Rome, belong, according to him, to *E. antiquus*, Falc., and *E. meridionalis*, Nesti, and those in Piedmont and Lombardy to the same species, together with *Elephas priscus*.

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WHERE TO DRAW THE LINE BETWEEN THE MIOCENE AND EOCENE  
TERTIARY STRATA, pp. 115, 175, 183.

Classification of the Miocene and Eocene strata—Where to draw the line between Upper Eocene and Lower Miocene—Reasons for a proposed change of nomenclature—Miocene fossil shells and quadrupeds of the Sewalik or Sub-Himalayan hills.

I HAVE stated in the fifteenth chapter (p. 183), that many eminent geologists consider the Marine Sands of the Forest of Fontainebleau, together with their equivalents in age in Belgium, Germany, and elsewhere, as the base of the Miocene division of the great Tertiary series.

\* Geol. Quart. Journ., vol. xii. p. 124.