

found in association with those of extinct animals, that it is generally admitted once to have been an aboriginal inhabitant. When I first saw examples of these remains I was not disposed to view them as relics of an extinct species; for although some presented characteristic differences from those of previously known species, others were undistinguishable from the corresponding parts of the domestic horse, and among them were intermediate varieties of form and size. The subsequent discovery of the remains of two species of the closely allied extinct genus *Hipparion*, in addition to the discovery of remains of two extinct equine genera of an earlier geological period, leaves no room to doubt the former existence of the horse on the American continent, contemporaneously with the *Mastodon* and *Megulonyx*; and man probably was his companion."

The result of the whole seems to be, that of the animals found fossil in the post-pliocene beds, all the mollusca of the present day are undoubtedly a perpetuation of the same species; that of the higher order of vertebrata, the tapir, peccary, raccoon, opossum, deer, elk, and musk-rat are equally entitled to be considered the descendants of this ancient race. And if the claims of the mollusca to this distinction rest upon a secure basis, because they are peculiar to this country, and not obnoxious to suspicion of foreign immigration, it must be recollected that this is equally true of the above named animals.

Those which have hitherto been regarded as of recent and European origin, are the horse, sheep, hog and ox; and it must be reserved perhaps for future consideration to determine how far the negative proof of the non existence of these animals in the country at the time of its discovery may be regarded in each individual case sufficiently strong to settle the question of his extinction and re-introduction, when so many of his associates and contemporaries have succeeded in maintaining an unbroken line of descent down to the present day.

The questions involved in the final results of these discoveries are as varied as they are important. Professor Agassiz has taken up the inquiry with lively interest, and in a letter to Professor Holmes observes:—"The circumstances under which these remains are found, admit of no doubt, but the animals from which they are derived, existed in North America long before this continent was settled by the white race of men, together with animals which to this day are common in the same localities, such as the deer, the musk-rat, the opossum, and others only now found in South America, such as the tapir. This shows beyond the possibility of controversy, that animals which cannot be distinguished from one another, may originate independently in different fauna, and I take it that the facts you have brought together are a satisfactory proof that horses, sheep, bulls and hogs, not distinguishable at present from the domesticated species, were called into existence upon the continent of North America prior to the coming of the white race to these parts, and that they had already disappeared here when the new comers set foot upon this continent; but the presence of tapir teeth among the rest show also that a genus peculiar to South America and the Sunda Islands existed also in North America in those days, and that its representative of that period is not distinguishable from the South American species."