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This familiar Miscellany, from which religious and political matters are excluded, contains a variety of original and selected Articles: comprehending Literature, Criticism Men and Manners, Amusement, Elegant Extracts, Poetry, Anecdotes, Biography, Meteorology, the Drama, Arts and Sciences, Wit and Satire, Fashions, Natural History, &c. &c. forming a handsome Annual Volume, with an Index and Title-page.—*Its circulation renders it a most eligible medium for Literary and Fashionable Advertisements.*—Regular supplies are forwarded weekly to the Agents.

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Natural History.

LETTERS ON THE REVOLUTIONS OF THE GLOBE.

BY M. ALEX. B.

La legère couche de vie, qui fleurit à la surface du globe, ne couvre que des ruines.—Paris: printed, 1824.

Translated expressly for the Kaleidoscope from a recent French work.

LETTER XI.—OF THE HIPPOPOTAMUS, THE RHINOCEROS, THE HORSE, &c.

The difficulty of obtaining a complete skeleton of the living species of the hippopotamus, prevented, during a long time, any progress in the study of the fossil species. M. Cuvier, after several years of research, at length succeeded in procuring one to be deposited in our Museum of natural history, and thus aided, brought the study of this animal to a very satisfactory degree of perfection.

The fossil hippopotamus is often found in the upper Val d'Arno, where its bones are more numerous than those of the rhinoceros, and nearly as much so as those of the elephant: they are mixed with the bones of these two species, and are, consequently, deposited in the sandy hills which encompass the valley.

One of the species of the fossil hippopotamus seems to have been somewhat larger than that now living in Egypt; its neck must have been shorter, although nearly similar in form.

A portion of a bone, easily recognised to be the tusk of an hippopotamus, was found in the plain of Grenelle, whilst the workmen were making the necessary preparations for the constructions of the bridge of Jéna.

Besides this species, there has existed another not larger than our hog. The age usually attained by this animal, its form, and size, have been ascertained with sufficient accuracy by an inspection of the bones preserved in the Museum.

There is also in our Museum a portion of a jaw-bone, retaining several teeth, from which it may be presumed that there was an intermediate species, more similar in size to the small than to the large species.

Finally, some fossil teeth, found mixed with teeth of the crocodile, at the depth of twenty feet, in a bed of calcarious earth, near Blaze, in the Department of La Charente, indicate the existence of another species, allied to that of the hippopotamus, and smaller than the hog.

Rhinoceroses must formerly have been much more numerous in the Old World than they now are. We are, in fact, acquainted with only two living species of this animal; but, in the fossil state, besides two large species, of nearly the same size as those now living, and long known to us, it is probable that there are two small species, discovered at a later period, and of which we possess only very few bones.

The fossil species most anciently known, and of which specimens most abound in Asia, and in the northern and middle parts of Europe, is distinguished from the living species by a very remarkable circumstance.

The most striking characteristic of the rhinoceros is the enormous horn which grows upon its head. When its skeleton is examined, in order to discover what basis nature has prepared for so heavy an organ, it is with astonishment perceived that it is affixed to the extremity of the bones of the nose, which, although they form an arch of considerable thickness, are entirely unsupported by any other part of the skull.

The species, which must have been most common in the Old World, appears to have been, in this respect, much more advantageously organized than the present species. Its nostrils were, in fact, provided with a partition of bone, which served to support the arch to which the horn was affixed. Besides this favourable circumstance in the formation of the fossil species, the arch, formed by the bones of the nose, is less elevated, and considerably flattened towards the lower jaw.

A great majority of the fossil bones that have been found belong to this species, which was the only one known some years ago. Pallas, a celebrated naturalist, who travelled in Siberia, and of whom I think I have already spoken to you, has written an acount of the discovery of an entire rhinoceros of this species, found, with its skin, in in December 1771, on the shores of the Wilaji, a river which flows into the Lena.

Fossil rhinoceroses are found also in Europe; they are particularly abundant in the Val d'Arno, so celebrated for the numerous remains of elephants and hippopotamuses which it contains: but, in this country, and in every part of Italy, besides the most common species, of which I have just spoken to you, another is found, possessing, in common with the species now living, this peculiarity, that it is destitute of the remarkable *partition* in the nose, mentioned above.

Fossil incisors of the rhinoceros have been discovered in Germany, which must have belonged to animals of the usual size. Now, neither the species like that known to us, nor the species of Italy without the bone partition in their nostrils, can possibly be furnished with incisors; there is not even room for them in their jaw bones. These teeth, therefore, must have belonged to a different species, of which, probably, other remains will, in the course of time, be discovered.

The soil of France was also destined to reveal to us the existence of an ancient species of these animals, more curious, perhaps, than all the preceding. Incisive teeth, much smaller than those found in Germany, and evidently the remains of a much smaller species than that to which the latter belonged, have been discovered in the village of St. Laurent, near Moissac (Lot-et Garonne.)

Several bones of the skeleton of the rhinoceros, which can have belonged only to animals of a very small size, seem to compel us to conclude that there must have been several small species with incisive teeth.

I will anticipate any doubts you may entertain respecting the existence of these small species, in the supposition that naturalists may have been led into error by the discovery of some bones of young animals, by informing you, Madam, that the skeletons of young animals are impressed with certain characteristics denoting their age, which it is impossible to mistake, and that their bones are distinguished from those of full grown animals, by differences, easily recognised, even in the fossil state. With respect to jaw bones (which are those most often found, and generally in the best state of preservation) an inspection of the alveoli is sufficient to remove all doubt respecting the age of the animals to which they belonged.

Mr. Home announced, last year (Philosophical Transactions, 1822) the existence of a rhinoceros, brought from Caffraria, which, he affirmed, perfectly resembled those of the fossil species. There is, nevertheless, this essential difference between them, that, in the head of which he speaks, the partition of the nostrils is not ossified, like that of the fossil species to which he compares it.

The horse of the ancient world, more than all other animals of that period, resembled the individuals of the corresponding species, now living. We discover, from an inspection of its fossil bones, that it differed only in dimensions. They must have belonged to animals not exceeding our large asses in size. These little horses were contemporary with the elephants and rhinoceroses of the ancient world, since their bones are found deposited in the same soil. Neither were they less numerous, although their remains have been collected in smaller quantities, because the discovery of them was less astonishing. They evidently perished with the other animals of that period, and we have no reason to suppose that our horses derive their origin from this ancient race.

Before I conclude my remarks upon the discoveries of animals, deposited in the most superficial layers, that is, in those which have been covered by a revolution of apparently short duration, I must add, that bones have been found, which, although much less numerous than those of the preceding species, are yet sufficient to establish clearly the existence of a species of gigantic tapir. Perhaps, Madam, you do not know that this animal, supposed to exist only in South America, has recently been observed in the East Indies, where a species has been found, much superior in size to the American species. The fossil tapir was, however, incomparably larger even than the Indian species now in existence.

The animals of the ancient world appear, in general, to have been larger than those of the corresponding species now living. This circumstance is strikingly apparent in the fossil bones of the sloth, lately found in America, deposited in very superficial layers.

The sloth is distinguished from other animals by many singularities. Its name is derived from the slowness of its motions; and it is incontestably the most miserable of the living beings known to us.

The disproportioned dimensions of its anterior members, which are, at least, twice as long as its legs; the conformation of its basin, which prevents its knees from touching each other; the disadvantageous structure of the joints connecting its feet and legs, which causes them to turn upon them like the weathercock upon its pivot: all these circumstances combine to impede its walk; consequently, it can only drag itself along upon its knees, painfully and slowly. We are assured by travellers that it cannot advance more than fifty paces in a day. It has neither incisive nor canine teeth, and lives entirely upon leaves and fruit: it has no means either of attack or defence. "These animals," says Buffon, "remind us of those defective monsters, those imperfect semblances of living creatures, often produced by nature, which, having hardly the organs necessary for existence, subsisted only for a time, and have since been effaced from the list of animated beings." The difference existing between this family and all others that might in any degree be compared with it is exceedingly remarkable. "The sloth," says M. Cuvier, "has

so few relations with ordinary animals, the general laws of organization, now established in the animal kingdom, are so inapplicable to the structure of the different parts of its body, that we cannot help believing it to be the remains of another order of things, the living wreck of that extinct nature of which we find no other traces except in the ruins buried in the bosom of the earth; we are tempted to suppose that it must have escaped, by some miracle, the catastrophes which destroyed the species contemporary with it.

The elephant is also remarkable for the very perceptible manner in which it differs from all other mammalia; but its organization, although peculiar, is by no means disadvantageous, whilst the sloth presents the most perfect type of weakness and misery.

Although these animals appear to be connected only with an extinct race, very few fossil bones have yet been found that can be supposed to have belonged to any similar species. The fossil animals most nearly allied to the sloth have been discovered in America; one, the *megalonyx*, was dug up in a cavern, from the depth of only a few inches from the surface of the soil; it was at least equal in size to the largest oxen of Switzerland and Hungary. It was at first taken for a carnivorous animal, much superior in size to the lion; but M. Cuvier has proved that it must have belonged to the class of sloths.

The *megatherium* is a fossil animal of the same family as the *megalonyx*, and still more remarkable for its large dimensions. Almost all the bones, composing its skeleton, were fortunately found united in the same place; so that, although it is one of the last mammalia, whose fossil bones have been discovered, it is better known than any other. It must have been nearly equal in size to the elephant; it lived upon vegetables; its fore feet were very strong, and, being furnished with sharp nails, were admirably adapted for raking up the earth; it is, therefore, supposed that it preferred roots for its food.

Of all the animals, whose organization resembled that of the sloth, the *megatherium* seems to have been best fitted to struggle against the inconveniences of its defective structure, "Its size, and its claws," says M. Cuvier, "must have furnished it with the means of defence. It was incapable of running swiftly; but that quality was unnecessary for it, as it had no occasion either to pursue or shun other animals."

All the remains of it, that have yet been discovered, were found in the most superficial layers, and some naturalists seem disposed to think, that there may still be in existence some individuals of this species, which travellers have not hitherto had an opportunity of observing. This opinion is not at all probable, for, in what place of concealment could so large an animal escape the researches of hunters and naturalists?

A single phalanx, found in the states of the Grand Duke of Hesse, was the means of discovering to M. Cuvier the existence of a gigantic *pangolin*,* which must have been at least eight times as large as the animals of the same species now living; it was, therefore, about twenty-four feet in length.

Ruminants also existed before the last cataclysm in considerable numbers, as their bones are very abundant in the layers containing the remains of the animals of which I have already spoken to you.

Nevertheless, all the genera of this class are not found in a fossil state; no remains have yet been discovered, bearing even the leading characteristics of sheep, goats, antelopes, cameleopards, camels, lamas or chevrotains. It is impossible to account for this deficiency; it cannot be attributed to unfitness of climate; for, although the chamois, musimon, and wild goat, inhabit cold countries, the antelope, camel, cameleopard, and lama, live only in warm countries. Besides, bulls and stags, although natives of cold countries, are very frequently found in a fossil state. It is a singular circumstance, that whilst the fossil *parchydermes* belong to genera now entirely confined to the torrid zone, the ruminants, that have been found in a fossil state, as for instance, the auroch, the musked bull, the elk, and the rein-deer, are now peculiar to cold countries.

The most celebrated fossil ruminant is the *stag with gigantic horns;* it belongs to a species evidently extinct. It appears to be more common in Ireland than elsewhere. An English naturalist affirms that, in a single orchard, of an acre in extent, more than thirty of these animals have, to his knowledge, been dug up, in the course of twenty years. One of them was furnished with horns, of which each head was more than five English feet long; the points of the two exterior antlers were at the distance of ten feet ten inches from each other.

The heads of fossil stags are not proportioned in dimensions to the horns upon them; the largest are shorter than the heads of common elks.

The genus of the bull now comprehends, besides our domestic species, the auroch, which lives in a wild state in cold countries, the buffalo, also a wild animal, but a native of warm countries, and the American bison, found only in the northern part of the new continent.

The bones of the fossil bull have belonged to individuals very nearly resembling those at present in existence: they are divided into three species, the auroch, the common bull, and the musked bull. The species in a fossil state are distinguished from the corresponding species now living by no decided characteristic.

It has been remarked that the common bulls, whose remains have been found in a fossil state, must have been much larger than the bulls of our days. Nevertheless, it is possible that the present bulls derive their origin from this ancient race, which civilization has caused to become extinct. One corroboration of this opinion is, that the skulls of fossil bulls have, till now, been found only in turf-pits, or other layers of soil, formed since the existence of the last order of things: it may, therefore, be concluded that they are of much more modern origin than the bones of elephants, rhinoceroses, &c.

* The pangolin is an animal allied to the genus of ant-eaters. It is found in Africa. To escape the pursuit of its enemies, instinct instructs it to roll itself up into a ball, as the hedge hog does in our country. The largest pangolins are not eight feet in length.

Men and Manners.

TOUCHARD'S COFFEE-HOUSE.

(FROM THE FRENCH OF DE JOUY, BY L. MAN.)

(Translated expressly for the Kaleidoscope.)

The manners and habits of strolling comedians have a character of originality, which has always appeared to me to be deserving of remark. Their very manner of expressing themselves is very different from that we generally meet with. This peculiarity originates in the isolated condition to which prejudice condemns them; and whosoever wishes to have a correct idea of what I mean to say, has only to go to Touchard's coffee-house, during the Easter holidays.

Methinks I hear nearly all my provincial readers exclaim, Touchard's coffee-house! and that even many of my Parisian friends join in the exclamation, and ask me where that house is? I reply, that from time immemorial it formerly stood in Slaughter-street; but that it has, of late, changed its name, place, and master, without changing its destination. It is now in Barrentree-street, not far from the fountain that Thalia, or rather Thespis, has erected a temple. It is there that the curious may meet with a collection of all the performers, who have not been able to find an engagement, or whom a brutal public has not encouraged, after they had found one. Sometimes they come to the metropolis, in the hope of getting employment in one of its various theatres, but more frequently their utmost ambition is to be engaged by a liberal country manager. Fortune plays her tricks in this place, as in others; and frequently she seems to make a parody upon her own whims. The man who has been playing last year the valets at Bordeaux, may now be engaged to enact the financiers at La Rochelle; the innocent country-girl, from the Lisle theatre, may have to perform at Strasburgh, in the parts of great coquettes; in short, there is here a kind of lottery of ranks, just as in real society, but with this remarkable difference, that the prizes are more generally given to the deserving.

It would be impossible to imagine all the comical episodes which take place in this singular bazar, where talents are offered for sale, and disposed of at the highest price that can be procured for them. I have long been in the habit of attending there; and I am more or less acquainted with most of the singing, acting, and gesticulating population of the French provinces; thanks to a reputation of generosity, acquired by the distribution of a few glasses of *liqueur*, and the occasional loan of a few half-crowns, which I take especial care to forget, as soon as they are gone. Last Wednesday I called as usual, and I found business already in full activity. Three managers had arrived, and opened the Exchange: one was disputing about the proposed addition of twenty-five dollars to the salary of a tyrant; another wanted a hero, to act also the principal parts in farces; a third wished to engage a lover, and made him sing a love-ditty; whilst a bass singer was making a voluntary display of his powerful voice, after having washed his throat with a bottle of Surène wine; a Duenna was waiting for an offer, and shared her coffee and milk with a favourite spaniel; an actress of all work was writing down the names of four hundred and sixty parts, which she was ready to perform; one was stipulating for a benefit at the end of the theatrical season; another was asking a leave of absence for six weeks; but all were equally urgent for advances of cash.

The first person that recognised me was a celebrated lover: I have known him as such these thirty-six years, and his age must be near sixty-three; but he does not yet feel inclined to enact fathers, and he persists in sticking to his primitive employment, yet, in the same proportion as his experience increases, his credit with the managers declines. In his youth he constituted the delight of Lyons, Nantes, and Marseilles; twenty years later he was applauded at Orleans, Tours, and La Rochelle; at present he comes from Angoulême, and he will shortly be engaged at Evreux. I took the liberty of remonstrating with him on the subject, but he replied in the most dignified manner, that he would rather be the first in a village than the second in a town.

"Such is not my sentiment," said a stout man, who had joined our conversation; "we ought to accommodate ourselves to circumstances." The speaker had taken his place at our table, and his dress struck me as being very singular: he wore a coat of shabby black velvet, under a kind of cloak made of buckram, in which he acted Turkish parts, but which served him, at the same time, instead of a great coat; a Polish fur cap covered his head, and his boots were of yellow morocco, laced behind. He cast a longing glance towards our bowl of punch, and continued,—"Gentlemen, you see in me the best and poorest financier; the finest and saddest bass singer in the world. You look at me; you try to recollect where you have seen me: every where; at Brussels, for instance, where my singing and acting are still spoken of, though I have not been there these ten years. Give me but a bumper of good Burgundy, and nobody shall outdo me yet." He began, actually, to give us a specimen of his vocal powers, when a little man, with a round wig, stopped him short, by bringing to his recollection that he (Mr. Floridor) had received from him (Manager Preville) an advance of seventy-two francs, to perform at Havres three years ago, and that he had never compiled with the contract. The ensuing explanation threatened to become very hot; for Mr. Floridor seemed to have already experienced the effect of his Burgundian specific: but I endeavoured to accommodate matters, by engaging him to fulfil his contract now, since the manager