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NATURAL HISTORY, T

GENERAL AND PARTICULAR, (14)

BY THE

COUNT DE BUFFON,

TRANSLATED INTO ENGLISH.

ILLUSTRATED

WITH ABOVE 300 COPPER-PLATES,

AND OCCASIONAL

NOTES AND OBSERVATIONS.

BY WILLIAM SMELLIE,

MEMBER OF THE ANTIQUARIAN AND ROYAL  
SOCIETIES OF EDINBURGH.

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SECOND EDITION.

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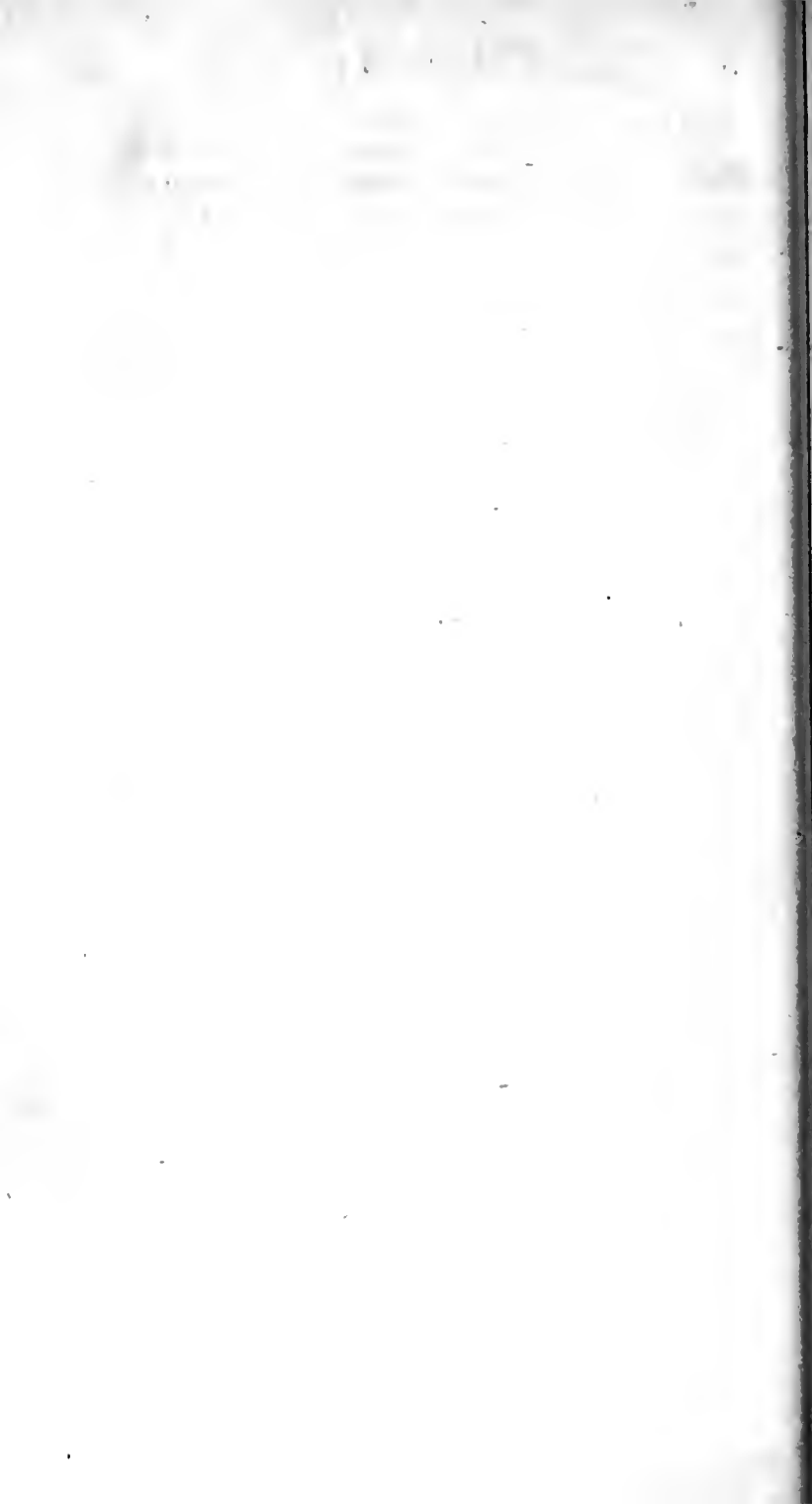
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# NATURAL HISTORY.



## O F M U L E S.

[*From the supplementary Volume.*]

**W**E shall retain the name of *Mule* to the animal produced by the jack-ass and mare; and to that procreated between the horse and she-ass, we shall give the denomination of *bardeau*. The differences which subsist between these two mongrel animals have never hitherto been marked by any author. These differences, however, afford the most certain criterion for distinguishing the relative influence of males and females in the product of generation. A comparison of these two mules, and other mongrels proceeding from a mixture of different species, will give us more precise ideas concerning this relative influence, than could be obtained by simply comparing two individuals of the same species.

The bardeau is much smaller than the mule, and seems to preserve the dimensions of its mother, the she-afs; and the mule retains the dimensions of the mare. Hence, in mixed species, the size of the body appears to depend more upon the mother than the father. Now, these two animals differ in figure. The neck of the bardeau is thinner, the back sharper, and the crupper more pointed; while the fore-head of the mule is better shaped, the neck more beautiful, the sides rounder, and the crupper more plump. Hence both of these animals retain more of the mother than of the father, not only in magnitude, but in figure of body. This remark, however, does not apply to the head, limbs, and tail. The head of the bardeau is longer, and not so thick in proportion as that of the afs; and the head of the mule is shorter and thicker than that of the horse. Hence, in the figure and dimensions of the head, they have a greater resemblance to the father than to the mother. The tail of the bardeau is garnished with hair nearly in the same manner as that of the horse; and the tail of the mule is almost naked, like that of the afs. In this extreme part of the body, therefore, the similarity to the father predominates. The ears of the mule are longer than those of the horse; and the ears of the bardeau are shorter than those of the afs. The limbs of the mule are hard and limber, like those of the horse; and the limbs of the bardeau are  
more



more fleshy. Hence these two animals, in the form of the head, limbs, and other extremities of the body, have a greater resemblance to the father than to the mother.

In the years 1751 and 1752, I made two he-goats copulate with several ewes, and I obtained nine mules, seven males and two females. Struck with this difference between the number of males and females, I endeavoured to discover whether the number of male mules, produced by the ass and mare, predominated in the same proportion. The information I received did not ascertain this point; but I learned that the number of male mules always exceeded that of the females. The Marquis de Spontin-Beaufort made a dog intermix with a she-wolf, and procured four mules, three of which were males\*. In fine, having made inquiries concerning mules which were more easily obtained, I learned, that the number of males greatly exceeded that of the females. In the article, *Canary-birds* †, I remarked, that of nine young produced between a goldfinch and a Canary-bird, there were only three females. These are the only certain facts I could collect on this subject ‡, which merits

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\* Letter from the Marquis de Spontin-Beaufort to M. de Buffon, dated Namur, July 14. 1773, and attested by two letters from M. Surirey de Boissy, likewise dated Namur, June 9. and July 19. 1773.

† See tom. 4. de l'Hist. Nat. des Oiseaux.

‡ What is related by different authors, concerning the jumars,

more attention than it has yet received ; for the mysteries of generation by the concurrence of different species, and the ascertaining of the proportional effective powers of males and females in every kind of reproduction, can alone be developed by an assemblage of similar facts.

Of my nine mules produced by the he-goat and the ewes, the first was brought forth on the 15th day of April. When examined three days after

mars, appears to be very suspicious. The *Sieur Léger*, in his history of the *Voulois*, tells us, ‘ That, in the valleys of Piedmont, there are mongrel animals, called *jumars* ; that, when engendered by a bull and a mare, they are denominated *baf* or *buf*, and, when produced by a bull and she-afs, they receive the appellation of *bif* ; that these *jumars* have no horns, and are of the size of mules ; that they are very swift ; that he mounted one of them on the 30th day of September, and performed, in a single day, a journey of eighteen leagues, or fifty-four Italian miles ; and that they were surer and more easy than a horse.’

From an assertion of this kind, we would be led to believe, that these *jumars*, produced by the bull and the mare and she-afs, either exist, or did formerly exist ; yet I have never been able to discover any confirmation of these facts.

*Dr Shaw*, in his history of *Algiers*, p. 166. says, ‘ To the mule we may join the *Kumrah*, as the Algerines call a little servicable beat of burden, begot betwixt an afs and a cow. That which I saw at *Algiers* (where it was not looked upon as a rarity), was single hoofed, like the afs, but distinguished from it, in having a sleeker skin, with the tail and the head (though without horns) in fashion of the dam’s.’ *Dr Shaw* is an author who deserves credit. However, having consulted several persons who had been in *Barbary*, and particularly the *Chevalier James Bruce*, they all assured me, that they had no knowledge concerning these animals engendered by an afs and a cow.

after birth, and compared with lambs of the same age, it differed from them in the following particulars: The ears, upper part of the head, as well as the distance between the eyes, were larger. It had besides a band of whitish gray hair from the nap of the neck to the extremity of the tail. The four legs, the superior part of the neck, the breast, and belly, were covered with the same white, coarse hair. There was a small quantity of wool upon the flanks only; and even this short, curled wool, was mixed with a great deal of hair. The legs of this mule were also an inch and a half longer than those of a lamb of the same age. When examined, eighteen days after birth, the white hairs were partly fallen off, and replaced by brown hairs, similar in colour to those in the he-goat, and nearly as coarse. The limbs continued to be more than an inch and a half longer than those of the lamb; and, on account of this length of limbs, it did not walk so well as the lamb. This lamb was killed by an accident; and I took no farther notice of the mule till four months afterward, when I compared it with a sheep of the same age. In the mule, from the space between the eyes to the extremity of the muzzle, the distance was at least an inch shorter than in the sheep; and the head of the mule was more than half an inch broader, at the broadest part. Hence the head of this mule was thicker and shorter than that of a sheep of equal age. The curva-

ture of the upper jaw, taken from the corner of the mouth, was near half an inch longer in the mule than in the sheep. The head of the mule was not covered with wool, but with long, bushy hair. The tail was two inches shorter than that of the sheep.

In the beginning of the year 1752, I obtained, from the union of a he-goat with ewes, eight other mules, six of which were males, and two females. Two of them died before I could examine them; but they seemed to resemble those who survived. Two of them, a male and a female, had four teats, two on each side, like those of the goats. In general, these mules had long hair on the belly, and particularly about the penis, as in the he-goat, and also on the feet, and particularly those behind. Most of them had the chanfrin less arched than is common to lambs, the distance between the hoofs larger, and the tail shorter.

Under the article *Dog*, I related some experiments made with a view to procure an intermixture between a dog and a wolf, where all the precautions employed for that purpose were abortive \*. The conclusion drawn from these experiments was in the following words: ‘I pretend not absolutely to affirm, that the wolf, in no age or country, never intermixed with dogs. The contrary is asserted positively by the ancients. Aristotle remarks, that, though  
‘ animals

\* See vol. IV. p. 24.

‘ animals of different species seldom intermix ;  
 ‘ yet it certainly happens among dogs, foxes,  
 ‘ and wolves.’ I have since learned the propriety  
 of being thus cautious in my conclusions ;  
 for M. le Marquis de Spontin-Beaufort has suc-  
 ceeded in the junction of a dog and a wolf. I  
 was informed of this fact by M. Surirey de Boif-  
 fy, in a letter which he wrote me in the follow-  
 ing terms :

‘ *Namur, June 9. 1773.* The Marquis de  
 ‘ Spontin has in this place reared a very young  
 ‘ she-wolf, to whom he gave, as a companion, a  
 ‘ dog of nearly the same age. They were left  
 ‘ at full liberty, and came into the apartments,  
 ‘ the kitchen, the stable, &c. They live in the  
 ‘ most intimate friendship, and are extremely  
 ‘ caressing, lying under the table, and upon the  
 ‘ feet of the persons who sit around.

‘ The dog is a kind of mongrel mastiff, and  
 ‘ full of vigour. During the first six months,  
 ‘ the wolf was fed with milk, and afterward  
 ‘ with raw flesh, which it preferred to what was  
 ‘ roasted. When she eat, no person durst ap-  
 ‘ proach her. At other times, she permitted e-  
 ‘ very freedom, except abuse. She caressed all  
 ‘ the dogs which came near her, till she began  
 ‘ to give a preference to her old companion ; af-  
 ‘ ter which, she was enraged at every other. She  
 ‘ was covered, for the first time, on the 25th  
 ‘ day of March last. Her amours continued  
 ‘ fifteen days, with pretty frequent repetitions ;  
 ‘ and

‘ and she brought forth her young on the sixth  
 ‘ day of June at eight o’clock in the morning.  
 ‘ Hence the time of her gestation was seventy-  
 ‘ three days. The young were four in number,  
 ‘ and of a blackish colour. Some of them have  
 ‘ the half of the breast, and the pats, white.  
 ‘ These colours are derived from the dog, which  
 ‘ is black and white. From the moment of lit-  
 ‘ tering, she growled and attacked all who ap-  
 ‘ proached her. She no longer distinguished her  
 ‘ masters; and would even have devoured the  
 ‘ dog, if he had come near her.

‘ I add, that she has been chained ever since  
 ‘ she made a break at her gallant, who had leap-  
 ‘ ed a neighbouring wall, in order to come at a  
 ‘ bitch in season; that she nearly worried her ri-  
 ‘ val; and that the coachman separated them by  
 ‘ repeated blows of a large bludgeon, and con-  
 ‘ ducted her to her lodge, where, imprudently  
 ‘ commencing his chastisement, her fury rose to  
 ‘ such a degree, that she bit him twice in the  
 ‘ thigh, and the wounds confined him six weeks  
 ‘ to his bed.’

In my answer to this letter, I thanked M. de  
 Boiffy, and added some remarks, with a view to  
 remove my doubts. M. le Marquis de Spon-  
 tin having seen my answer, obligingly wrote  
 me in the following terms:

‘ *Namur, July 14. 1773.* I read with much  
 ‘ satisfaction the judicious remarks you trans-  
 ‘ mitted to M. Surirey de Boiffy, whom I had  
 ‘ begged

‘ begged to communicate to you, during my  
‘ absence, a fact, which cannot be denied, not-  
‘ withstanding the force of your arguments, and  
‘ the opinion I have always entertained, as well  
‘ as the rest of the world, of the excellence of  
‘ the many learned productions by which you  
‘ have enlightened the republic of letters. But,  
‘ whether it was an effect of chance, or one  
‘ of those sports of Nature, who, as you re-  
‘ mark, sometimes departs from her established  
‘ laws, the fact is incontestible; and you will  
‘ be convinced of its truth, if you give credit  
‘ to what I have the honour of writing you,  
‘ which can be attested by two hundred persons  
‘ at least, who were witnesses to it as well as  
‘ myself. This she-wolf was only three days  
‘ old when I purchased it from a peasant, who  
‘ had carried it off, after killing the mother. I  
‘ fed it with milk till it was able to eat flesh.  
‘ I recommended to those who had the care of  
‘ it, to caress, and handle it often, with a view  
‘ to render it as tame as possible. At last, it be-  
‘ came so familiar that I have taken it to hunt  
‘ in the woods at the distance of a league from  
‘ my house, without any danger of losing it.  
‘ Sometimes, when I was unable to call it back,  
‘ it returned of its own accord in the night. I  
‘ was always more certain of keeping it at home  
‘ when I had a dog; for it was fond of dogs;  
‘ and those who had overcome their natural re-  
‘ pugnance, sported with it, as if they had been  
‘ animals

‘ animals of the same species. During all this  
‘ time, it attacked only cats and poultry, whom  
‘ it strangled, without discovering any inclination  
‘ to eat them. As soon as she attained the  
‘ age of twelve months, her ferocity increased,  
‘ and I began to perceive that she had a strong  
‘ desire to attack sheep and bitches. I then  
‘ chained her; because she frequently sprung up-  
‘ on her master, when he attempted to restrain  
‘ her. She was at least one year old when I in-  
‘ troduced her to the acquaintance of the dog  
‘ which covered her. She has been kept in my  
‘ garden, which is situated in the centre of the  
‘ town, since the end of November last; and,  
‘ therefore, no male wolf can be supposed to have  
‘ had any communication with her. As soon  
‘ as she came in season, she discovered such an  
‘ affection for the dog, and the dog for her,  
‘ that each of them howled frightfully when  
‘ they were not together. She was first cover-  
‘ ed on the 28th day of March, and twice each  
‘ day during the two following weeks. They  
‘ continued attached to each other more than a  
‘ quarter of an hour at every embrace, during  
‘ which time the wolf complained, and seemed  
‘ to suffer pain; but the dog was perfectly at his  
‘ ease. Three weeks after, her pregnancy was  
‘ perceptible. On the 6th day of June, she  
‘ brought forth four young, whom she still  
‘ suckles, though they are five weeks old, and  
‘ have pretty long sharp teeth. They have a  
‘ perfect



' perfect resemblance to puppies, having long  
 ' pendulous ears. One of them is black, with  
 ' a white breast, which was the colour of the  
 ' dog. The others will probably be of the colour  
 ' of the mother. The hair of each of them is  
 ' coarser than that of ordinary dogs. There is but  
 ' one female, with a very short tail, like the dog,  
 ' who had scarcely any tail. They promise to  
 ' be large, strong, and very ferocious. The mo-  
 ' ther is extremely solicitous concerning their  
 ' wellfare. . I doubt whether I shall keep her any  
 ' longer, having been chagrined by an accident  
 ' that befell my coachman, whom she bit so cruel-  
 ' ly, that he has been confined to his bed these  
 ' six weeks past. But I will engage, that, if pre-  
 ' served, she will again have puppies by the same  
 ' dog, who is white, with large black spots on  
 ' the back. I hope, Sir, that what I have said  
 ' will answer for a reply to your remarks, and  
 ' that you will no longer hesitate concerning the  
 ' truth of this singular event.'

My doubts are entirely removed, and I am  
 happy to embrace this opportunity of expressing  
 my thanks. The establishment of a rare fact in  
 natural history is a great acquisition. The means  
 of obtaining such facts are always difficult, and  
 often, as we have seen, very dangerous. It was  
 for this last reason that I sequestered my wolf  
 and dog from all society. I had formerly rear-  
 ed a young wolf, who, till the age of twelve  
 months, did no mischief, and followed his ma-  
 ster

ster like a dog. But, in the second year, he committed so many excesses that it was necessary to kill him. I learned by experience, that these animals, though softened by education, resume, with age, their natural ferocity. Willing to prevent these inconveniences, I kept my she-wolf always confined along with the dog; and I acknowledge that this method of procuring an union between them was ill imagined; for, in this state of slavery and disgust, the dispositions of the wolf, instead of being softened, were soured to such a degree, that she was more ferocious than if she had been at full liberty; and the dog, having been early detached from his equals, and from the society of men, had assumed a savage and cruel character, which the bad humour of the wolf served only to augment; so that, during the two last years, their antipathy rose to such a degree, that they desired nothing so much as to devour each other. In the experiment made by the Marquis de Spontin, every circumstance was reversed. The dog was in his ordinary condition: He had all the mildness and other qualities which this docile animal acquires by his intercourse with man. The wolf was likewise reared in perfect freedom and familiarity along with the dog, which, by being under no restraint, had lost his repugnance to her; and she, by the same mild management, became susceptible of attachment to him. She, therefore, received him with cordiality, whenever the

the

the hour of Nature struck: And, though she seemed to complain and to suffer, she felt more pleasure than pain; for she allowed the operation to be repeated every day, during all the time she was in season. Besides, the proper moment for this unnatural union was seized. The wolf felt the impression of love for the first time. She was only in the second year of her age; and, of course, had not entirely resumed her natural ferocity.

All these circumstances, and perhaps some others which were not observed, contributed to the success of this fertile embrace. From what has been remarked, it would appear, that the most certain method of rendering animals unfaithful to their species, is to place them, like man, in society, and to accustom them gradually to individuals which, without such precautions, would not only be indifferent, but hostile to each other. However this matter stands, the Marquis de Spontin has ascertained the fact, that the dog can produce with the wolf even in our climates. I could have wished that the success of this experiment had induced its author to try the union of a wolf with a bitch, and of foxes with dogs. But if this desire should be considered as exorbitant, he must ascribe it to the insatiable enthusiasm of a naturalist\*.

But

\* A similar fact has been announced by M. Bourgelat, in a letter to me, dated April 15. 1775: 'My Lord Pembroke,' says

But to return to our mules. In those I obtained from the he-goat and ewe, the number of males was as seven to two; in those from the dog and she-wolf, the males were as three to one; and, in those from the goldfinch and Canary bird, the males were as sixteen to three. It appears, therefore, to be certain, that the number of males, which is always greater than that of females in pure species, is still greater in mixed species. Hence, the male, in general, has a greater influence on the produce of generation than the female, because he transmits his sex to the greatest number, and because the number of males augments in proportion to the remoteness of the species which intermix. The same thing must happen in the conjunction of different races: By crossing the remotest of these, we shall not only procure the most beautiful productions, but the greatest number of males.

I

says he, 'informed me, that, within these few days, he saw a large mastiff copulate with a she-wolf; that the wolf is tame; that she is always in her master's chamber, and consequently under his eye; that she never goes out alone; and that she follows her master with all the fidelity of a dog. He adds, that an animal merchant has had, at four different times, mules produced by the wolf and dog. He alleges, that the wolf is only a wild dog; and in this opinion he is joined by the celebrated anatomist Mr Hunter. He thinks differently with regard to the fox. He tells me, that a bitch, who was a daughter of a wolf, and belonged to Lord Clanbrazil, intermixed with a setting dog, and produced puppies, which, according to his hunter, will be excellent pointers.'

I have often endeavoured to investigate the reason why any religion, or any government, should prohibit the marriage of brothers and sisters. Did men learn, by very ancient experience, that the union of brother and sister was less fertile than an intermixture with strangers, or that the former produced fewer males, and feebler and more unhandsome children? It is certain, however, that, from a thousand experiments, both in men and the other animals, crossing the breed is the only mode of ennobling and preserving the perfection of the species.

To these facts and experiments, let us add what the ancients have said upon this subject. Aristotle tells us, that the mule engenders with the mare, and that the junction produces an animal which the Greeks called *binuus* or *ginnus*. He likewise remarks, that the she-mule easily conceives, but seldom brings the foetus to perfection\*. Of these two facts, the second is more rare than the first; and both happen only in warm climates. M. de Bory, of the royal academy of Sciences, and formerly governour of the American islands, communicated to me a recent fact of this kind, in a letter, dated May 7. 1770, of which the following is an extract.

‘ You will perhaps recollect, Sir, that M. d’Alembert read, last year, in the Academy of Sciences, a letter, which informed him, that a she-mule, in the island of St Domingo, had

\* Arist. hist. animal. lib. 6. cap. 24.

‘ had brought forth a foal. I was desired to  
 ‘ write for proper vouchers of the fact; and I  
 ‘ have now the honour of sending you the certi-  
 ‘ ficate which I received. . . . My correspon-  
 ‘ dent is worthy of the highest credit. He adds,  
 ‘ that he has seen mules cover, indiscriminately,  
 ‘ she-mules and mares, and likewise she-mules  
 ‘ covered by stallions and he-mules.’

This certificate is judicially attested, and signed by witnesses of unquestionable veracity. The substance of it is, that, on the 14th day of May 1769, M. de Nort, Knight of St Louis, and late Major of the Royal Legion of St Domingo, had a she-mule brought to him, which was said to be sick; that her belly was remarkably large, and a membrane protruded through the vagina. M. de Nort, believing the animal to be inflated, sent for a Negro farrier, who had been accustomed to take care of diseased animals; that this Negro, who arrived in the absence of M. de Nort, had thrown down the mule, in order to give her a draught; that, the moment after the fall, she brought forth a young mule, perfectly formed, and covered with long and very black hair; that the young mule lived an hour; but that, having been both hurt by the fall, the foal died soon after birth, and the mother ten hours after; and, in fine, that the young mule was skinned, and the skin sent, says M. de Nort, to Doctor Matty, who deposited it in the Musaeum of the Royal Society at London.

Other

Other eye-witneſſes, and particularly M. Cazav-  
vant, ſurgeon, add, that the young mule ſeemed  
to have been mature, and well formed; that,  
from the appearance of its hair, head, and ears,  
it had a greater reſemblance to the afs than com-  
mon mules; that the paps of the mother were  
ſwelled, and full of milk; that, when the igno-  
rant Negro perceived the feet iſſuing from the  
vagina, he drew ſo forcibly as to invert the  
uterus, and lacerate the parts, which occaſioned  
the death of both mother and foal.

Theſe facts, which appear to be well aſcer-  
tained, ſhow, that, in warm climates, the  
mule is not only capable of conception, but of  
bringing the foetus to full maturity. From my  
correſpondents in Spain and Italy, I learn, that  
ſimilar events have happened in theſe countries:  
But the facts are not ſo completely authenticated.  
It ſtill remains to be inquired, whether this  
St Domingo mule was impregnated by an afs or  
a mule. The ſuperior reſemblance of the young  
mule to the former ſeems to indicate, that ſhe  
had been covered by an afs. The ferocious ar-  
dour of the afs renders him very indifferent in  
the choice of females, and makes him attack,  
with nearly the ſame avidity, the ſhe-aſs, the  
mare, and the mule.

We may, therefore, conſider it as an eſtabliſh-  
ed fact, that the he-mule can generate, and the  
ſhe-mule produce. Like other animals, they  
have a feminal liquor, and all the organs neceſſary

fary to generation. But mongrel animals are always less fertile, and more tardy than those of a pure species. Besides, mules have never produced in cold climates, seldom in warm regions, and still more seldom in temperate countries\*. Hence their barrenness, without being absolute, may

\* To the above facts, the translator has to add an instance of the prolific powers of a she-mule in the North of Scotland. Having heard that a mule, belonging to Mr David Tullo, farmer in Auchtertyre, in the county of Forfar, had some years ago brought forth a foal, he transmitted a few queries to be put to Mr Tullo: and requested that his answers might be legally attested before a magistrate. This request was cheerfully complied with; and the following is an exact copy of the queries, answers, and attestations.

Interrogatories to be put to Mr Tullo tenant in Auchtertyre, parish of Newtyle, and county of Forfar, with his answers thereto.

1mo, Had you ever a she-mule? At what period? Is it true that the mule had a foal? At what time was she covered; and when did she foal?

Answered by Mr Tullo: That he bought a she-mule about twenty years ago: That she was constantly in season for a horse: That, about some years thereafter, he gave her a horse; and that she, thereafter, gave him a foal, about the 10th of June. The mule's price was four pounds five shillings Sterling.

2do, What was the colour of the foal? Was there any thing particular in its figure?

Answer: The foal was exactly the colour of its mother, inclined to black, with a very large head, big ears, and small tail; and the declarant thinks, had its head been weighed when foaled, it would have weighed nearly as much as its body.



may be regarded as positive ; since their productions are so rare, that a few examples only can

B 2 be

3<sup>to</sup>, How long was the animal allowed to live ?

Answer : The next day after the mule foaled, it was sent, with its mother, to the Loch of Lundie, in order to let the foal die, as the declarant could not want the mule's work, and the mother seemed not fond of the foal : That it was accordingly left, and next day came to Auchtertyre, about two miles distance, over a hill, with the cattle of Auchtertyre, that had been grazing near to that place, and was drowned in a ditch the day following.

4<sup>to</sup>, Was its skin preserved, or the head, or any other bones of the skeleton ? Could any part thereof be still found ?

Answered : Neither the skin, nor any part of the skeleton was preserved, nor can now be had ; though the declarant has often regretted the not preserving the foal, as its mother always performed any work that a horse of fifteen pounds value could do.

5<sup>to</sup>, Is the mother still alive ? What is her age ?

Answer : The mother died, about eight years ago, of an epidemic cold that was raging among the horses in this country : The mule had little or no milk after foaling, and the foal got some cow's milk : And this is all that he remembers of the matter.

D A V I D T U L L O.

*Auchtertyre, 4th Feb. 1780.*

We James Small tenant in Burnmouth, and Robert Ramsay tenant in Newtyle, hereby certify, That we have often seen the mule above described, and we know that she had a foal, as is narrated by David Tullo.

J A M E S S M A L L.  
R O B. R A M S A Y.

*Baliantyne House, 4th Feb. 1780.*

The within interrogatories were put to David Tullo tenant in Auchtertyre, anent the mule he had, and the foal the produced,

be collected. But men were wrong in asserting that mules were absolutely barren, and that all animals proceeding from a mixture of different species were, like the mules, incapable of producing. The facts formerly related concerning the produce of a he-goat and a ewe, of a dog and a she-wolf, and of Canary birds and goldfinches, demonstrate, that these mongrels are by no means barren, and that some of them are equally prolific with their parents.

It is an unhappy circumstance, that a small, and often nominal error, extends over every object to which it has any relation, and at last not only becomes an error in fact, but gives rise to a general prejudice, that is more difficult to remove than the particular opinion from which it originated. A single word, a name like that of *mule*, which ought solely to represent the idea of the animal proceeding from the ass and mare, has been improperly applied to the animal produced by the horse and the she-ass, and afterward, with still greater impropriety, to all quadrupeds, and all birds, of mixed species: And,

as

duced, to which he gave the answers subjoined to each query, and signed them, as did James Small and Robert Ramsay, attesting the truth thereof, in presence of

GEORGE WATSON, J. P.

The original attestation is in the possession of the Translator; and he lately transmitted notorial or authenticated copies of it to the Count de Buffon, and to Thomas Pennant, Esq; of Downing, in Flintshire.

as this word *mule*, in its original acceptation, included the idea of the barrenness common to the animal proceeding from the ass and mare, this idea of barrenness has been conveyed to all beings who have the denomination of *mules*; I say to all beings; for, independent of quadrupeds, birds, and fishes, mule plants have been fancied, to which, without hesitation, this general sterility has also been ascribed. None of these beings; however; is absolutely barren. The *mule*, properly so called, or the animal produced by the ass and mare, is not absolutely barren; but its prolific powers, when compared with those of pure species, or even with those of other animals of a mixed species; are much more feeble and uncertain.

All mules, says Prejudice, are vitiated animals, incapable of producing: No animal, say Reason and Experience, though proceeding from two species, is absolutely barren. It ought to be remarked, however, that in pure, as well as in mixed species, the degrees of fertility are very different. In the first; some, like the fishes and insects; multiply; annually, by millions; others, as the birds and small quadrupeds, produce by twenties and dozens; in fine, others; as man; and the larger quadrupeds, produce only one in twelve months. The number produced may be said to be in the inverse proportion of the magnitude of animals. The horse and ass bring forth but one in a year; and, in the same pe-

B 3

riod,

riod, the mouse and Guiney pig produce thirty or forty. Hence the fecundity of these small animals is thirty or forty times greater; and, if a scale were formed of the different degrees of fertility, the small animals above enumerated would occupy the highest points, while the horse and ass would be found nearly in the lowest; for the elephant alone is less fertile.

In mixt species, there are also different degrees of fecundity; for animals proceeding from two species partake of two natures, and are, in general, less fertile; and this want of fertility increases in proportion to the infecundity of the parents. Hence, if the horse and ass, two animals naturally not very fertile, mix, the original infecundity, instead of diminishing in the mongrel race, must be augmented. The mule will not only be less fertile than its parents, but, perhaps, the most unfertile of all mongrels, because all the other mules which produce, such as those proceeding from the he-goat and ewe, from the goldfinch and Canary bird, &c. are much more fruitful than those produced by the ass and horse. It is to this original and particular cause, that the infecundity of the mule and bardeau should be referred. A second cause, still more particular, renders the last animal less prolific than the first. The mule proceeding from the ass and mare retains the ardent temperament of the father, and, of course, possesses a high degree of prolific power; while the bardeau proceeding

ceeding from the horse and ass is, like its father, less potent, and less able to engender. Besides, the mare, being less ardent than the she-ass, is likewise more fertile, since she conceives and retains with more certainty. Thus every circumstance concurs in rendering the mule more prolific than the bardeau; for ardour of temperament in the male, which is so necessary to successful generation and the number produced, is hurtful in the female, and almost always prevents conception and retention.

This fact holds generally both in man and the other animals. Cold women, joined to ardent men, produce a number of children. A woman, on the contrary, who feels too acutely the emotions of love, is seldom fertile. But, in most women who are merely passive, the effect is more certain; because the fruit of generation is less disturbed by the convulsions of pleasure. These are so marked, and so destructive to the conception, in some females, such as the she-ass, that she requires cold water to be thrown on her crupper, and even heavy blows, in order to repress them. Without such disagreeable aids, the she-ass would seldom be impregnated, till age abated the fury of her passion. The same means are sometimes employed to make mares conceive.

But, it may be said, that female dogs and cats, which seem to be more ardent than the mare and she-ass, never fail to conceive; and, therefore,

fore, that the fact advanced concerning the infecundity of females whose feelings are exquisite, is too general, and admits of many exceptions. But the example of dogs and cats, instead of being an exception, is rather a confirmation of the general rule; for, in the bitch, however violent the convulsions of the internal organs may be supposed, they have full time to be appeased during the long interval between consummation and the retreat of the male, who cannot detach himself till the turgidity and irritation of the parts subside. The female cat is in a similar situation. Of all females, she appears to be most ardent in her amours; for she calls to the males with lamentable cries, which announce the most pressing necessity. But, as in the dog, from a particular conformation of the male cat, this violent female never misses conception. Her desires, which are excessive, are necessarily tempered with a pain almost equally acute. The glans of the male cat is covered with large sharp prickles. The intromission of it, therefore, must be extremely painful to the female, who announces her sufferings by loud cries. The pain is so great, that she instantly makes every effort to escape, and the male, to retain her, is obliged to seize her by the neck with his teeth, and to compell submission from the very female who had invited his embraces.

In

In domestic animals, who are well fed and taken care of, multiplication is greater than in those who continue in a wild state. Of this we have an example in domestic dogs and cats, who produce several times every year; but, when in a natural state, they produce only once in the same period. Domestic birds furnish an example still more striking: Can the fecundity of any species of wild birds be compared to that of a well fed hen, when properly served with a cock? And, even in the human species, what a vast difference between the scanty propagation of savages, and the immense population of civilized nations, under the administration of a wise government? But we here confine ourselves to the fecundity natural to animals in full possession of liberty, the relative fertility of whom is exhibited in the following Table, from which some important conclusions may be drawn.

## TABLE

# TABLE of the Relative Fecundity of ANIMALS.

Names.	Age at which males can engender, and females produce.		Times of gestation.	Number of young produced at a litter.		Age at which males cease to engender, and females to produce.	
	M A L E. Years.	F E M A L E Years.		M A L E. Years.	F E M A L E. Years.		
Elephant	30	30	2 years	1 in 3 or 4 years	lives 200		
Rhinoceros	15 or 20	15 or 20	. . . . .	1	lives 70 or 80		
Hippopotamus	. . . . .	. . . . .	. . . . .	1	. . . . .		
Walrus	. . . . .	. . . . .	9 months	1	. . . . .		
Camel	4	4	1 year nearly	1	lives 40 or 50		
Dromedary	4	4	Idem	1	lives 40 or 50		
Horse	2½	2	11 months	1, sometimes 2	at 25 or 30		at 18 or 20
Zebra	2	2	11 ditto	1, rarely 2	at 25 or 30		at 18 or 20
Afs	2	2	11 do. & more	1, rarely 2	at 25 or 30		at 25 or 30
Buffalo	3	3	9 months	1	lives 15 or 18		
Ox	2	1½	ditto	1, rarely 2	at 9		at 9
Stag	1½	1½	8 do. & more	1, rarely 2	lives 30 or 35		
Rain-deer	2	2	8 months	1	lives 16		
Lama	3	3	. . . . .	1, rarely 2	at 12		at 12
Man	14	12	9 months	1, sometimes 2			
Large apes	3	3	. . . . .	1, sometimes 2			
Mouflon	1½	1	5 ditto	1, sometimes 2, twice a year in hot climates.	at 8		at 10 or 12



Names.	Age at which males can engender, and females produce.		Times of gestation,	Number of young produced at a litter	Ages at which males cease to engender, and females to produce.	
	M A L E. Years.	F E M A L E. Years.			M A L E. Years.	F E M A L E. Years.
Saiga	1	1	5 months	1, sometimes 2	lives 15 or 20	
Robuck	1 1/2	2	5 ditto	1, 2, sometimes 3	lives 12 or 15	
Chamois goat	1	1	5 ditto	1, 2, rarely 3	lives 20	
Goat	1	7 months	5 ditto	1, 2, rarely 3, and never above 4	at 7	
Sheep	1	1	5 ditto	1, sometimes 2, twice a year, in warm climates	at 10 or 12	
Seal			several months	mates 2 or 3		
Bear	2	2	ditto	1, 2, 3, 4, and never above 5	lives 20 or 25	
Badger				3, or 4.		
Lion	2	2		3 or 4 once a year	lives 20 or 25	
Leopards and Tiger	2	2		4 or 5 once a year		
Wolf	2	2	73 days or more	5, 6, to 9, once a year.	at 15 or 20	
Dog in a natural state.	9 or 10 months	9 or 10 months	63 days	3, 4, 5, 6.	at 15	

Names.	Age at which males can engender, and females produce M A L E. Years.	Age at which males can engender, and females produce F E M A L E. Years.	Times of gestation.	Number of young produced at a litter.	Age at which males cease to engender, and females to produce. M A L E. Years.	Age at which females cease to engender, and males to produce. F E M A L E. Years.
Isatis	1	1	63 days	6 and 7	at 10 or 11	at 10 or 11
Fox	1	1	In season in winter, and produces in April	3, 4, to 6	at 10 or 11	at 10 or 11
Jackal	1	1	56 days	2, 3, or 4	at 9	at 8 or 10
Cat in a natural state	before 1	before 1	56 days, it is said	4, 5, or 6	at 8 or 10	at 8 or 10
Martin	1	1	idem	3, 4, and 6	at 8 or 10	at 8 or 10
Pine Weasel	1	1	idem	3, 4, and 6	gener. dur. life	prod. dur. life
Polecat	1	1	idem	3, 4, and 6	idem	idem
Weasel	1st year	1st year	idem	3, 4, and 5	idem	idem
Ermine	idem	idem	idem	idem	idem	idem
Squirrel	1	1	copulates in March, and produces in May	3 or 4	idem	idem
Flying squirrel	1	1	40 days	3 or 4	lives 6	
Hedgehog	1	1	idem	3, 4, and 5		
Dormice	1st year	1st year	idem	3, 4, and 5		
Musk rats	1	1	idem	4, 5, or 6		
Opossums	1	1	idem	4, 5, 6, and 7		

Names.	Age at which males can engender, and females produce. M A L E, Years.	F E M A L E, Years.	Times of gestation.	Number of young produced at a litter	Age at which males cease to engender, and females to produce M A L E, Years.	F E M A L E, Years.
Hogs	1 year or 9 mos.	1 year or 9 mos.	4 months	10, 12, 15, to 20, twice a year.	at 15	at 15
Armadillos	• • • • •	• • • • •	• • • • •	4 several times a year	• • • • •	• • • • •
Hare	1st year	1st year	30 or 31 days	2, 3, 4, several times a year	lives 7 or 8	• • • • •
Rabbit	5 or 6 months	5 or 6 months	idem	4, 5, to 8, several times a year	idem	• • • • •
Ferret	1 year	1st year	40 days	5, 6, to 9, twice a year	during life	• • • • •
Rats	idem	idem	5 or 6 weeks	5 or 6 several times a year	idem	• • • • •
Field mice	idem	idem	1 month or 5 weeks	9 or 10 several times a year	• • • • •	• • • • •
Moufe	idem	idem	idem	5 or 6 several times a year	• • • • •	• • • • •
Brown rat	idem	idem	• • • • •	12 to 19 thrice a year	idem	• • • • •
Guine pig	5 or 6 weeks	5 or 6 weeks	3 weeks	eight times a year; 1st litter 4 or 5; 2d, 5 or 6; and the others 7, 8, to 11	lives 6 or 7, and produces during life	• • • • •

This is the order in which Nature has presented to us the different degrees of fecundity in quadrupeds; and from it we perceive, that this fecundity diminishes in proportion to the magnitude of the animal. In general, this scale of fecundity extends to all the other tribes of animated Nature. Small birds are more prolific than the larger kinds. The same thing holds in fishes, and perhaps in insects. But, confining our remarks to quadrupeds alone, it appears from the above table, that the hog is the only exception to the general rule; for, from the size of his body, he should be ranked with those animals which produce only two or three, once in twelve months, while, in fact, he is equally prolific with small quadrupeds.

This table contains all that is known with regard to the fertility of pure species. But the fecundity of mixed species, which is always less than that of the pure, merits particular attention. The reason will be apparent, by supposing, for example, that all the males in the horse species, and all the she-asses, or, rather, all the jack-asses and all the mares, were destroyed: In this case, those mixed animals alone, which we call *mules* and *bardeaux*, would be produced; and the number brought forth would be much fewer than that of horses or asses; because the natural conformities or relations between the horse and she-ass, or between the jack-ass and mare, are less than between the horse and mare, or the male  
and

and female afs. It is the number of conformities and diffimilarities which constitutes or distinguishes species ; and, since the species of the afs has at all times been separated from that of the horse, it is apparent, that, by mixing these two species, whether by means of females or males, we diminish the number of conformities which constitute the species. Hence the males will engender and the females produce seldomer, and with more difficulty ; and even those mixed species, if their conformities were fewer, would become entirely barren. Mules of every kind, therefore, must be rare ; because it is only by being deprived of its natural female, that any animal will intermix with a female of a different species. Even when mongrel animals approach each other with some degree of warmth, their produce is neither so certain nor so frequent as in pure species, where the number of conformities is greater. Now, the produce of mixed species will be less frequent, in proportion to the infecundity of the pure species from whom they proceed ; and the produce of animals proceeding from mixed species will always diminish in proportion as they recede from the original stock ; because the conformities between them and any other animal are augmented. For example, I am persuaded, from the reasons above assigned, that an intercourse between two bardeaux would be abortive. Besides, these animals proceed from two species which are not very fertile, and are  
also

also under the influence of the same causes which often prevent the she-afs from conceiving with her own male. I am more uncertain with regard to the sterility of *mules* properly so called; because they are not liable to the last cause of barrenness; for, as the mare conceives more easily than the she-afs, and the jack-afs is more ardent than the horse, their respective prolific powers are greater, and their produce not so rare as that of the she-afs and horse. The mules, of course, will be less barren than the bardeaux. I suspect, however, that two mules never engender; and I presume, even from the examples of fertile mules, that they owe their impregnation to the afs, rather than to the mule; for we ought not to regard the he-mule as the natural male of the she-mule, though they both have the same name, or, rather, differ only in sex.

To explain this matter, let us suppose an order of kindred in species, like that which takes place in families. The horse and mare will be brother and sister in species, and parents in the first degree. It is the same with the male and female afs. But, if the male afs is given to the mare, they are only cousins in species, or kindred in the second degree. The mule produced by them, participating one half of both species, will be removed to the third degree of kindred. Hence the male and female mule, though proceeding from the same father and mother, instead of being brother and sister in species, are  
only

only kindred in the fourth degree; and, of course, will produce more difficultly between themselves, than the jack-ass and mare, who are kindred species in the second degree. For the same reason, the male and female mules will not produce so easily between themselves, as with the mare or ass; because the kindred of the latter in species is only in the third degree, while that of the former is in the fourth degree. The infecundity, which appears in the second degree, should be more conspicuous in the third, and perhaps absolute in the fourth.

In general, kindred of species is one of those mysteries of Nature, which man can never unravel, without a long continued and difficult series of experiments. How can we otherwise learn, than by the union of different species of animals many thousand times repeated, the degree of their kindred? Is the ass more allied to the horse than the zebra? Does the wolf approach nearer to the dog than the fox or jackal? At what distance from man shall we place the large apes, who resemble him so perfectly in conformation of body? Are all the species of animals the same now that they were originally? Has not their number augmented, instead of being diminished? Have not the feeble species been destroyed by the stronger, or by the tyranny of man, the number of whom has become a thousand times greater than that of any other large animal? What relation can be established

between kindred species, and another kindred still better known, that of different races in the same species? Does not a race, like the mixed species, proceed from an anomalous individual, which forms the original stock? In the dog species, there is, perhaps, a race so rare, that it is more difficult to procreate than the mixed species proceeding from the ass and mare. How many questions does this subject admit of; and how few of them are we in a condition to solve? How many facts must be discovered before we can even form probable conjectures? However, instead of being discouraged, the philosopher ought to applaud Nature, even when she is most mysterious, and to rejoice that, in proportion as he removes one part of her veil, she exhibits an immensity of other objects, all worthy of his researches. For, what we already know ought to point out what may still be known. There is no boundary to the human intellect. It extends in proportion as the universe is displayed. Hence man can and ought to attempt every thing: He wants nothing but time to enable him to obtain universal knowledge. By multiplying his observations, he might foresee all the phaenomena and all the events of Nature with equal certainty, as if he deduced them from their immediate causes: And what enthusiasm can be more pardonable, or rather more noble, than to believe that man is capable, by his labours, to  
discover



discover all the powers and mysteries of Nature!

These labours consist chiefly in making observations and experiments, from which we discover new truths. For example, the union of animals of different species, by which alone we can learn their kindred, has never been sufficiently tried. The facts we have been able to collect concerning this union, whether voluntary or forced, are so few, that we are not in a condition to ascertain the existence of *jumars*. This name was first given to mules said to have proceeded from the bull and mare; but it has likewise been applied to denote mongrels alledged to have been procreated by the jack-*afs* and cow. Dr Shaw tells us, that, in the provinces of Tunis and Algiers, ‘there is a little serviceable ‘beast of burden, called *Kumrah*, begot betwixt ‘an *afs* and a *cow*. That which I saw at Algiers (where it was not looked upon as a rarity) was single hooped like the *afs*, but distinguished from it in having a sleeker skin, with ‘the tail and the head (though without horns) ‘in fashion of the dam’s \*.’

Thus we have already two kinds of *jumars*, the one proceeding from the bull and mare, and the other from the jack-*afs* and cow. A third is mentioned by Merolle, and is pretended to proceed from the bull and she-*afs*. ‘There ‘was a beast of burden which proceeds from  
C 2 ‘ the

\* Shaw’s Travels, p. 166.

'the bull and she-aſs, and is obtained by covering the aſs with a cow's ſkin, in order to deceive the bull \*.'

But I am equally doubtful concerning the exiſtence of all the three kinds of jumars; though I pretend not to deny the poſſibility of the fact. I have even enumerated ſome facts which prove an actual copulation between animals of very different ſpecies: But their embraces were ineffectual. Nothing ſeems to be more remote from the amiable character of the dog than the brutal manners and inſtinct of the hog; and the form of their bodies is as different as their natural diſpoſitions. I have ſeen, however, two examples of a violent attachment between a dog and a ſow. Even during this very ſummer 1774, a large ſpaniel diſcovered a violent paſſion for a ſow which was in ſeaſon: They were ſhut up together for ſeveral days; and all the domeſtics were witneſſes of the mutual ardour of theſe two animals. The dog exerted many violent efforts to copulate with the ſow; but the diſſimilarity of their organs prevented their union †. The ſame thing happened ſome years before ‡. Hence animals, though of very different ſpecies, may contract a ſtrong affection to each other; for it is certain, that, in the above examples, nothing prevented the union of the dog and ſow but the  
conformation

\* Voyage de Merolle au Congo, en 1682.

† This fact happened in the houſe of M. le Comte de la Feuillée, in Burgundy.

‡ At Billy, near Chanceau in Burgundy.

conformation of their organs. It is not equally certain, however, that, if consummation had taken place, production would have followed. It often happens, that animals of different species spontaneously unite. These voluntary unions ought to be prolific, since they imply that the natural repugnance, which is the chief obstacle, is surmounted, and also a conformity between the organs. No fertility, however, has resulted from such commixtures. Of this an example recently passed before my eyes. In 1767, and some succeeding years, the miller at my estate of Buffon kept a mare and a bull in the same stable, who contracted such a passion for each other, that, as often as the mare came in season, the bull covered her three or four times every day. These embraces were repeated during several years, and gave the master of the animals great hopes of seeing their offspring. Nothing, however, resulted from them. All the inhabitants of the place were witnesses to this fact, which proves, that, in our climate at least, the bull cannot procreate with the mare, and renders this first kind of jumar extremely suspicious. I have not equal evidence to oppose to the second kind, which Dr Shaw says proceeds from the jack-ass and cow. I acknowledge, that, though the dissimilarities in structure appear to be nearly equal in both cases, the positive testimony of a traveller so well informed as Dr Shaw, seems to give a greater degree of probability to the exist-

ence of this second kind of jumar than we have for the first. With regard to the third jumar, proceeding from the bull and she-afs, I am persuaded, notwithstanding the authority of Merolle, that it has no more existence than the one supposed to be produced by the bull and mare. The nature of the bull is still farther removed from that of the she-afs, than from that of the mare: And the infertility of the mare and bull, which is ascertained by the above examples, should apply with greater force to the union of the bull and afs.

The

## The NOMENCLATURE of APES.

**T**O teach children, and to address men, are two very different offices. Children receive without examination, and even with avidity, the arbitrary and the real, the true and the false, whenever they are presented to them under the form of precepts. Men, on the contrary, reject with contempt all precepts which are not founded on solid principles. We shall, therefore, adopt none of those methodical distributions by which, under the appellation of *Ape*, a multitude of animals, belonging to very different species, have been huddled together in one indiscriminate mass.

What I call an *ape* is an animal without a tail, whose face is flat, whose teeth, hands, fingers, and nails resemble those of man, and who, like him, walks erect on two feet. This definition, derived from the nature of the animal itself, and from its relations to man, excludes all animals who have tails; all those who have prominent faces or long muzzles; all those who have crooked or sharp claws; and all those who walk more willingly on four than on two legs. According to this precise idea, let us examine how many species of animals ought to be ranked under the denomination of *ape*. The ancients knew only  
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one. The *pithecos* of the Greeks, and the *simia* of the Latins, is a true *ape*, and was the subject upon which Aristotle, Pliny, and Galen instituted all the physical relations they discovered between that animal and man. But this ape, or pigmy of the ancients, which so strongly resembles man in external structure, and still more strongly in its internal organization, differs from him, however, by a quality, which, though relative in itself, is not the less essential. This quality is magnitude. The stature of man, in general, exceeds five feet; that of the *pithecos*, or pigmy, never rises above one fourth of this height. Hence, if this ape had been still more similar to man, the ancients would have been justified for regarding it only as an *homunculus*, an imperfect dwarf, a pigmy, capable of combating with cranes; while man knew how to tame the elephant and conquer the lion.

But, since the discovery of the southern regions of Africa and India, we have found another ape possessing this quality of magnitude; an ape as tall and as strong as man, and equally ardent for women as for its own females; an ape who knows how to bear arms, to attack his enemies with stones, and to defend himself with clubs. Besides, he resembles man still more than the pigmy; for, independent of his having no tail, of his flat face, of the resemblance of his arms, hands, toes, and nails to ours, and of his walking constantly on end, he has a kind of visage with

with features which approach to those of the human countenance, a beard on his chin, and no more hair on his body than men have, when in a state of nature. Hence the inhabitants of his country, the civilized Indians, have not hesitated to associate him with the human species, under the denomination of *Orang-outang*, or *wild man*; while the Negroes, almost equally wild, and as ugly as these apes, who imagine not that civilization exalts our nature, have given it the appellation of *Pongo*, which is the name of a beast, and has no relation to man. This orang-outang or pongo is only a brute, but a brute of a kind so singular, that man cannot behold it without contemplating himself, and without being thoroughly convinced that his body is not the most essential part of his nature.

Thus, we have discovered two animals, the pigmy and the orang-outang, to which the name of *ape* ought to be applied. There is a third, to which, though more deformed both in relation to man and to the ape, this appellation cannot be refused. This animal, which till now was unknown, and was brought from the East-Indies, under the name of *gibbon*, walks on end, like the other two, and has a flat face. He likewise wants a tail. But his arms, instead of being proportioned to the height of his body, like those of man, the orang-outang, or the pigmy, are so enormously long, that, when standing on his two feet, he touches the ground with his hands,  
without

without bending either his body or limbs. This ape is the third and last to which the name ought to be applied : In this genus, he constitutes a singular or monstrous species, like the race of thick-legged men, said to inhabit the island of Saint-Thomas\*.

After the apes, another tribe of animals present themselves, to which we shall give the generic name of *baboon*. To distinguish them more accurately from the other kinds, let it be remarked, that the baboon has a short tail, a long face, a broad high muzzle, canine teeth, proportionally larger than those of man, and callosities on his buttocks. By this definition, we exclude from the baboon tribe all the apes who have no tail ; all the monkeys, whose tails are as long or longer than their bodies ; and all those who have thin, sharp pointed muzzles. The ancients had no proper names for these animals. Aristotle alone seems to have pointed out one of the baboons under the name *simia porcaria* †, though he has given but a very imperfect idea of the animal. The Italians first called it *babuino* ; the Germans, *bawion* ; the French, *babouin* ;

\* See the dissertation on the varieties of the Human Species, Vol. III. of this work.

† The denomination *Simia Porcaria*, which is employed by no other author but Aristotle, was not improperly applied to denote the baboon ; for I find in the works of several travellers, who probably never read Aristotle, the muzzle of the baboon compared to the snout of a hog. Besides, these animals have some resemblance in the form of their bodies.



*bouin* ; the British, *baboon* ; and all the modern writers of Latin, *papio*. We shall call it *baboon*, to distinguish it from the other species which have since been discovered in the southern regions of Africa and India. We are acquainted with three species of these animals : 1. The *baboon* properly so called, which is found in Lybia, Arabia, &c. and is probably the *simia porcaria* of Aristotle. 2. The *mandrill*, or *ribbed-nose*, is still larger than the baboon, has a violet coloured face, the nose and cheeks ribbed with deep oblique furrows, and is found in Guiney and in the warmest provinces of Africa. 3. The *ou-anderou*, which is smaller than the baboon and mandrill ; its body is thinner, its head and face are surrounded with a kind of long bushy mane, and it is found in Ceylon, Malabar, and other southern regions of India. Thus we have properly defined three species of apes, and three species of baboons, which are all very different from one another.

But, as Nature knows none of our definitions, as she has not classed her productions by bundles or genera, and as her progress is always gradual and marked by minute shades, some intermediate animal should be found between the ape and baboon. This intermediate species actually exists, and is the animal which we call *magot*, or the *Barbary ape*. It occupies a middle station between our two definitions. It forms the shade between the apes and baboons. It differs from  
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the first by having a long muzzle and large canine teeth ; and, from the second, because it actually wants the tail, though it has an appendix of skin, which has the appearance of a very small tail. Of course, it is neither an ape nor a baboon, but, at the same time, partakes of the nature of both. This animal, which is very common in Higher Egypt, as well as in Barbary, was known to the ancients. The Greeks and Romans called it *cynocephalus*, because its muzzle resembled that of a dog. Let us now arrange these animals in their proper order : The *orang-outang* is the first ape ; the *pigmy* the second ; and the *gibbon*, though different in figure, the third ; the *cynocephalus* or *magot* the fourth ape, or the first baboon ; the *papio* is the first baboon ; the *mandrill* the second ; and the *ouanderou*, or little baboon, the third. This order is neither arbitrary nor fictitious, but agreeable to the scale of Nature.

After the apes and baboons, come the *guenons*, or *monkeys* ; that is, animals resembling the apes and baboons, but which have tails as long, or longer than their bodies. The word *guenon* has, for some ages, had two acceptations different from that we have here given : It is generally employed to signify small apes, and sometimes to denote the female of the ape. But, more anciently, we called *singes*, or *magots*, the apes without a tail, and *guenons*, or *mones*, those which had long tails. This fact appears from the  
works

works of some travellers \* in the sixteenth and seventeenth centuries. The word *guenon* is probably derived from *kébos*, or *képos*, which the Greeks employed to denote the long-tailed apes. These *kébes*, or *guenons*, are smaller and weaker than the apes and baboons. They are easily distinguishable from one another by this difference, and particularly by their long tail. With equal ease they may be distinguished from the *makis* or *maucaucos*; because they have not a sharp muzzle, and, instead of six cutting teeth, like the makis, they have only four, like the apes and baboons. We know eight species of guenons; and, to prevent confusion, we shall bestow on each a proper name: 1. The *macaque*, or hare lipped monkey; 2. The *patas*, or red monkey; 3. The *malbrouk*; 4. The *mangabey*, or monkey with the upper eye-lids of a pure white colour; 5. The *none*, or varied monkey; 6. The *callitrix*, or green monkey: 7. The *mouftac*, or whiskered monkey; 8. The *talapoin*; 9. The *douc*, or monkey of Cochinchina. The ancient Greeks knew only two of these *guenons*,

OR

\* In Senegal there are several species of apes, as the *guenons*, with a long tail; and the *magots*, who have no tail; *Voyage de la Maire*, p. 101.—In the mountains of South America, there is a kind of *mones*, or long-tailed monkeys, which the savages call *cacuyen*. They are of the same size with the common kind, from which they differ only by having a beard on their chin.—Along with these *mones*, there are found a number of small yellow animals, called *sagouins*; *Singularités de la Fr. Antarct. par Thuret*, p. 103.

or long-tailed monkeys, namely, the mone and the callitrix, who are natives of Arabia and the northern parts of Africa. They had no idea of the other kinds; because these are found only in the southern provinces of Africa and the East Indies, countries entirely unknown in the days of Aristotle. This great philosopher, and the Greeks in general, were too wise to confound beings by common, and, therefore, equivocal names. They call the ape without a tail *pithecus*, and the monkey with a long tail, *kébos*. As they knew these animals to be distinct species, they gave to each a proper name, derived from their most striking characters. All the apes and baboons which they knew, namely, the *pigmy*, the *cynocephalus*, or *magot*, and the *simia porcaria*, or *papio*, have their hair nearly of a uniform colour. But the monkey, which we have called *mone*, and the Greeks *kébos*, has hair of different colours, and is generally known by the name of the *varied ape*. This species of monkey was most common, and best known in the days of Aristotle; and, from its most distinguished character, he calls it *kébos*, which, in Greek, signifies *varieties in colour*. Thus all the animals belonging to the class of apes, baboons, and monkeys, mentioned by Aristotle, are reduced to four, the *pithecus*, the *cynocephalus*, the *simia porcaria*, and the *kébos*; which we believe to be the *pigmy*, the *magot*, or *Barbary ape*, the *baboon*, and the *mone*, or *varied monkey*, not  
only

only because they agree with the characters given of them by Aristotle, but likewise because the other species must have been unknown to the ancients, since they are natives of countries into which the Greek travellers had never penetrated.

Two or three centuries after Aristotle, we find, in the Greek writers, two new names, *callithrix* and *cercopithecus*, both relative to the *gue-nons*, or long tailed monkeys. In proportion as discoveries were made of the southern regions of Africa and Asia, we found new animals, and other species of monkeys: And, as most of these monkeys had not, like the *kébos*, various colours, the Greeks invented the generic name *cercopithecus*, or *tailed ape*, to denote all the species of monkeys or apes with long tails; and, having remarked, among these new species, a monkey with hair of a lively greenish colour, they called it *callithrix*, which signifies *beautiful hair*. This *callithrix* is found in the south part of Mauritania, and in the neighbourhood of Cape de Verd, and is commonly known by the name of the *green ape*.

With regard to the other seven species of monkeys, mentioned above under the appellations of *makaque*, *patas*, *malbrouk*, *mangabey*, *mouftac*, *talapoin*, and *douc*, they were unknown to the Greeks and Latins. The *makaque* is a native of Congo; the *patas* of Senegal; the *mangabey*, of Madagascar; the *malbrouk*, of Bengal; the *mouftac*, of Guiney; the *talapoin*, of Siam; and

and the douc, of CochinChina. All these territories were equally unknown to the ancients.

As the progress of Nature is uniform and gradual, we find between the baboons and monkeys an intermediate species, like that of the magot between the apes and baboons. The animal which fills this interval has a great resemblance to the monkeys, particularly to the makaque; its muzzle, at the same time, is very broad, and its tail short, like that of the baboons. Being ignorant of its name, we have called it *maimon*, or *pig-tailed baboon*, to distinguish it from the others. It is a native of Sumatra. Of all the monkeys or baboons, it alone has a naked tail; and, for this reason, several authors have given it the denomination of the *pig-tailed*, or *rat-tailed apes*.

We have now enumerated all the animals of the Old World, to whom the common name of *ape* has been applied, though they belong not only to different species, but to different genera. To augment the confusion, the same names of *ape*, *cynocephalus*, *kébos*, and *cercopithecus*, which had been invented by the Greeks fifteen centuries ago, have been bestowed on animals peculiar to the New World, though so recently discovered. They never dreamed that none of the African or East Indian animals had any existence in the southern regions of the New Continent. In America, we have discovered animals with hands and fingers. This similarity was alone sufficient

sufficient to procure to them the name of *apes*, without considering that, for the transference of a name, identity of genus, and even of species, is necessary. Now, these American animals, of which we shall make two classes, under the appellations of *sapajous*, or monkeys with prehensile tails; and *sagoins*, or monkeys with long tails, which are not prehensile, or want the faculty of laying hold of any object, are very different from the apes of Asia and Africa; and, in the same manner, as no apes, baboons, or monkeys are to be found in the New World, there are neither sapajous nor sagoins in the Old. Though we have already given a general view of these facts, in our dissertation concerning the animals of both Continents, we can now prove them in a more particular manner, and demonstrate, that, of seventeen species, to which all the animals of the Old World called *apes*, may be reduced, and, of twelve or thirteen in the New World, to whom this name has been transferred, none of them are the same, or to be found equally in both Worlds; for, of the seventeen species in the Old Continent, three or four apes must first be retrenched, who certainly exist not in America, and to whom the sapajous and sagoins have no resemblance. In the second place, three or four baboons must likewise be retrenched: They are larger than the sapajous and sagoins, and also very different in figure. There remain only nine monkeys with whom

any comparison can be instituted. Now, all these monkeys, as well as the apes and baboons, have general and particular characters, which separate them entirely from the *sapajous* and *sagoins*. The first of these characters is to have naked buttocks, and natural callosities peculiar to these parts: The second is to have *abajoues*, or pouches under the cheeks, in which they can keep their victuals. The third is to have a narrow partition between the nostrils, and the apertures of the nostrils themselves placed in the under part of the nose, like those of man. The *sapajous* and *sagoins* have none of these characters. The partition between their nostrils is always very thick; the apertures of their nostrils are situated in the sides of the nose, and not in the under part of it. They have hair on their buttocks and no callosities. They have no pouches under the cheeks. Hence they differ from the monkeys not only in species, but in genus, since they possess none of the general characters which are common to the whole tribe of monkeys. This difference of genus necessarily implies greater differences in species, and shows that these animals are very remote from each other.

It is with much impropriety, therefore, that the names *ape* and *monkey* have been applied to the *sapajous* and *sagoins*. We must preserve their names, and, instead of associating them with the apes, we should begin by comparing them



them with one another. These two tribes differ from each other by a remarkable character: All the sapajous use their tail as a finger to hang upon branches, or to lay hold of any object they cannot reach with their hand. The sagoins, on the contrary, have not the power of employing their tail in this manner. Their face, ears, and hair are also different: We may, therefore, separate them into two distinct genera. In giving the history of the species, I shall avoid all those denominations which can only apply to the apes, baboons, and monkeys, and preserve the names they receive in their native country.

We are acquainted with six or seven species of sapajous, and six of sagoins, most of which have some varieties. We have carefully searched all the writings of travellers in order to discover the proper name of each species; because the names they receive in the places they inhabit generally point out some peculiar characteristic, which alone is sufficient to distinguish them from one another.

With regard to the varieties, which, in this class of animals, are perhaps more numerous than the species, we shall endeavour to refer each of them to their proper kinds. We have had forty of these animals alive, each of which differed more or less from one another; and to us it appears that the whole may be reduced to thirty species, namely, three apes, and an intermediate species between them and the baboons; three

baboons, and an intermediate species between them and the monkeys ; nine monkeys ; seven fapajous ; and six fagoins. All the others, or at least most of them, ought to be regarded as varieties only. But, as we are uncertain whether some of these varieties may not be distinct species, we shall endeavour to give all of them proper names.

On this occasion, let us consider terrestrial animals, some of which have a great resemblance to man, in a new point of view. The whole have improperly received the general name of *quadrupeds*. If the exceptions were few, we would not have found fault with the application of this name. It was formerly remarked, that our definitions and denominations, however general, never comprehend the whole ; that beings always exist which elude the most cautious definitions which ever were invented ; that intermediate beings are always discovered ; that several of them, though apparently holding a middle station, escape from the list ; and that the general names, under which we mean to include them, are incomplete ; because Nature should be considered by unities only, and not by aggregates ; because man has invented general denominations with the sole view of aiding his memory, and supplying the defects of his understanding ; and because he afterwards foolishly considered these general names as realities ; and, in fine, because he has endeavoured

deavoured to comprehend under them beings, and even whole classes of beings, which required different appellations. I can give an example, without departing from the class of quadrupeds, which, of all animals, we are best acquainted with, and, of course, were in a condition to have bestowed on them the most precise denominations.

The name *quadruped* supposes that the animal has *four feet*. If it wants two feet, like the manati; if it has arms and hands, like the ape; or if it has wings, like the bat; it is not a quadruped. Hence this general term, when applied to these animals, is abused. To obtain precision in words, the ideas they present must be strictly true. If we had a term for two hands similar to that which denotes two feet, we might then say that man was the only biped and *bimanus*, because he alone has two hands and two feet; that the manati is a *bimanus*; that the bat is only a biped; and that the ape is a *quadrimanus*, or four-handed animal. Let us now apply these new denominations to all the particular beings to which they belong, and we shall find, that, from about two hundred animals who go under the common name of *quadrupeds*, thirty-five species of apes, baboons, monkeys, sapajous, sagoins, and makis, must be retrenched, because they are *quadrimanus*, or four-handed; and that to these thirty-five species, the loris, or tailless maucauco, the Virginian, murine, and Mexican

opoffum, the Egyptian and woolly jerboa's, &c. should be added, because they are four-handed like the apes and monkeys. Thus the list of four-handed animals being at least forty species, the real number of quadrupeds is one fifth diminished. We must likewise retrench twelve or fifteen species of bipeds, namely, the bats, whose fore-feet are rather wings than feet, and likewise three or four jerboa's, because they can walk on their hind feet only, the fore-feet being too short. If we subtract also the manati, which has no hind feet, the arctic and Indian walrus, and the seals, to whom the hind feet are useless; and, if we still retrench those animals which use their fore-feet like hands, as the bears, the marmots, the coati's, the agouti's, the squirrels, the rats, and many others, the denomination of *quadruped* will appear to be applied improperly to more than one half of these animals. The whole and cloven-hoofed are indeed the only real quadrupeds. When we descend to the digitated class, we find four-handed, or ambiguous quadrupeds, who use their fore-feet as hands, and ought to be separated or distinguished from the others. Of whole-hoofed animals, there are three species, the horse, the ass, and the zebra. If to these we add the elephant, the rhinoceros, the hippopotamus, and the camel, whose feet, though terminated by nails, are solid, and serve the animals for walking only, we shall have seven species

species to which the name of *quadruped* is perfectly applicable. The number of cloven-hoofed animals greatly exceeds that of the whole-hoofed. The oxen, the sheep, the goats, the antilopes, the bubalus, the lama, the pacos, the giraffe, the elk, the rain deer, the stag, the fallow-deer, the roebuck, &c. are all cloven-footed, and constitute about forty species. Thus we have already fifty animals, ten whole and forty cloven-hoofed, to whom the name *quadruped* is properly applied. In the digitated animals, the lion, tiger, panther, leopard, lynx, cat, wolf, dog, fox, hyaena, badger, polecat, weasels, ferret, porcupines, hedgehogs, armadillos, ant-eaters, and hogs, which last constitute the shade between the digitated and cloven-footed tribes, form a number consisting of more than forty species, to which the term of *quadruped* applies with perfect precision; because, though their fore-feet be divided into four or five toes, they are never used as hands. But all the other digitated species, who use their fore-feet in carrying food to their mouths, are not, in strict propriety of language, quadrupeds. These species, which likewise amount to forty, make an intermediate class between quadrupeds and four-handed animals, being neither the one nor the other. Hence, to more than a fourth of our animals, the name of *quadruped* does not apply; and to more than a half of them, the application of it is incomplete.

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The four-handed animals fill the interval between man and the animals; and the two-handed species constitute a mean term in the distance between man and the cetaceous tribes. The bipeds with wings form the shade between quadrupeds and birds; and the digitated species, who use their fore feet as hands, fill the whole space between the quadrupeds and the four-handed kinds. But I will pursue this subject no farther: However useful it may be for acquiring a distinct knowledge of animals, it is still more so by affording a fresh proof, that all our definitions or general terms want precision, when applied to the objects or beings which they represent.

But why are these definitions and general terms, which appear to be the most brilliant exertions of the human intellect, so defective in their application? Does the error necessarily arise from the narrow limits of our understanding? Or, rather, does it not proceed solely from our incapacity of combining and perceiving at one time a great number of objects? Let us compare the works of Nature with those of man. Let us examine how both operate, and inquire whether the mind, however acute, can follow the same route, without losing itself in the immensity of space, in the obscurity of time, or in the infinity of related beings. When man directs his mind to any object, if his perceptions be accurate, he takes the straight line,  
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runs over the smallest space, and employs the least possible time in accomplishing his end. What an expence of thought, how many combinations are necessary to avoid those deceitful and fallacious roads which at first present themselves in such numbers, that the choice of the right path requires the nicest discernment? This path, however, is not beyond the reach of the human intellect, which can proceed without deviating from the straight line. The mind is enabled to arrive at a point by means of a line; and, if another point must be gained, it can only be attained by another line. The train of our ideas is a delicate thread, which extends in length, without any other dimensions. Nature, on the contrary, never moves a step which extends not on all sides, and runs at once through the three dimensions of length, breadth, and thickness. While man reaches but one point, Nature accomplishes a solid, by penetrating the whole parts which compose a mass. In bestowing form on brute matter, our statuaries, by the union of art and time, are enabled to make a surface which exactly represents the outside of an object. Every point of this surface requires a thousand combinations. Their genius is directly exerted upon as many lines as there are strokes in the figure. The smallest deviation would be a deformity. This marble, so perfect that it seems to breathe, is, of course, only a multitude of points at which the artist arrives by a long succession of labour; because human genius, being unable to seize more than

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one dimension at the same time, and our senses reaching no farther than surfaces, we cannot penetrate matter: But Nature, in a moment, puts every particle in motion. She produces forms by exertions almost instantaneous. She at once develops them in all their dimensions. As soon as her movements reach the surface, the penetrating forces with which she is animated operate internally. - The smallest atom, when she chooses to employ it, is instantly compelled to obey. Hence she acts, at the same time, on all sides, before, behind, above, below, on the right and left; and, consequently, she embraces not only the surface, but every particle of the mass. How different likewise is the product? What comparison is there between a statue and an organized body? How unequal, at the same time, are the powers, how disproportioned the instruments? Man can employ only the power he possesses. Limited to a small quantity of motion, which he can only communicate by the mode of impulsion, his exertions are confined to surfaces; because, in general, the impulsive force is only transmitted by superficial contact. He neither sees nor touches more than the surfaces of bodies; and, when he wishes to attain a more intimate knowledge, though he opens and divides, still he sees and touches nothing more than their surfaces. To penetrate the interior parts of bodies, he would require a portion of that force which acts upon the mass, or of gravity, which is Nature's chief instrument. If man could employ this penetrating force as

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he does that of impulsion, or if he had a sense relative to it, he would be enabled to perceive the essence of matter, and to arrange small portions of it, in the same manner as Nature operates at large. It is owing to the want of instruments, therefore, that human art cannot approach that of Nature. His figures, his pictures, his designs, are only surfaces, or imitations of surfaces; because the images he receives by his senses are all superficial, and he has no mode of giving them a body.

What is true with regard to the arts, applies likewise to the sciences. The latter, however, are not so much limited; because the mind is their chief instrument, and because, in the former, it is subordinate to the senses. But, in the sciences, the mind commands the senses as often as it is employed in thinking and not in operating, in comparing and not in imitating. Now, the mind, though bound up by the senses, though often deceived by their fallacious reports, is neither diminished in its purity nor activity. Man, who naturally loves knowledge, commenced by rectifying and demonstrating the errors of the senses. He has treated them as mechanical instruments, the effects of which must be submitted to the test of experiment. Proceeding thus with the balance in one hand, and the compass in the other, he has measured both time and space. He has recognised the whole outside of Nature; and, being unable to penetrate her internal parts by his senses,

senses, his deductions concerning them have been drawn from comparison and analogy. He discovered that there exists in matter a general force, different from that of impulsion, a force which falls not under the cognisance of our senses, and which, though we are incapable of using it, Nature employs as her universal agent. He has demonstrated, that this force belongs equally to all matter, in proportion to its mass or real quantity; and that its action extends to immense distances, decreasing as the spaces augment. Then, turning his views upon living beings, he perceived that heat was another force necessary to their production; that light was a matter endowed with infinite elasticity and activity; that the formation and expansion of organized bodies were effects of a combination of all these forces; that the extension and growth of animals and vegetables follow the laws of the attractive force, and are effected by an augmentation in the three dimensions at the same time; and that a mould, when once formed, must, by these laws of affinity, produce a succession of other moulds perfectly similar to the original. By combining these attributes, common to the animal and vegetable, he recognised, that there existed in both an inexhaustible, circulating store of organic substance; a substance equally real as brute matter; a substance which continues always in a live as the other does in a dead state; a substance universally diffused, which passes from  
vegetables

vegetables to animals by means of nutrition, returns from animals to vegetables by the process of putrefaction, and maintains a perpetual circulation for the animation of beings. He perceived, that these active organic particles existed in all organized bodies ; that they were combined, in smaller or greater quantities, with dead matter ; that they were more abundant in animals, in whom every thing is alive, and more rare in vegetables, in which death predominates, and life seems to be extinct, organization being surcharged with brute matter ; and that plants are, of course, deprived of progressive motion, of heat, and of life, exhibiting no other quality of animation but expansion and reproduction. Reflecting on the manner in which these last are accomplished, he discovered that every living being is a mould that has the power of assimilating the substances with which it is nourished ; that growth is an effect of this assimilation ; that the development of a living body is not a simple augmentation of volume, but an extension in all dimensions, a penetration of new matter through all parts of the mass ; that these parts, by increasing proportionally to the whole, and the whole proportionally to the parts, the form is preserved, and continues always the same, till growth is completed ; that, when the body has acquired its full expansion, the same matter, formerly employed in augmenting its volume, is returned, as superfluous, from all the parts to which it had been assimilated,

fimilated, and, by uniting in a common point, forms a new being perfectly fimilar to the first, and, to attain the fame dimensions, requires only to be developed by the fame mode of nutrition. He perceived that man, quadrupeds, cetaceous animals, birds, reptiles, insects, trees, and herbs, were nourished, expanded, and reproduced by the fame law ; and that the mode of their nutrition and generation, though depending on the fame general cause, appeared to be very different, because it could not operate but in a manner relative to the form of each particular species of being. Proceeding gradually in his investigation, he began, after a succession of ages, to compare objects. To distinguish them from each other, he gave them particular names ; and, to unite them under one point of view, he invented general terms. Taking his own body as the physical model of all animated beings, he measured, examined, and compared all their parts, and he discovered that the form of every animal which breathes is nearly the fame ; that, by dissecting an ape, we may learn the anatomy of a man ; that, taking another animal, we always find the fame fund of organization, the fame senses, the fame viscera, the fame bones, the fame flesh, the fame motion of the fluids, the same play and action of the solids. In all of them he found a heart, veins, and arteries, and the same organs of circulation, respiration, digestion, nutrition, and secretion ; in all of them, he found a solid structure

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ture composed of the same pieces, and nearly situated in the same manner. This plan proceeds uniformly from man to the ape, from the ape to quadrupeds, from quadrupeds to cetaceous animals, to birds, to fishes, and to reptiles: This plan, I say, when well apprehended by the human intellect, exhibits a faithful picture of animated Nature, and affords the most general as well as the most simple view under which she can be considered: And, when we want to extend it, and to pass from the animal to the vegetable, we perceive this plan, which had at first varied only by shades, gradually degenerating from reptiles to insects, from insects to worms, from worms to zoophytes, from zoophytes to plants; and, though changed in all its external parts, still preserving the same character, the principal features of which are nutrition, growth, and reproduction. These features are common to all organized substances. They are eternal and divine; and, instead of being effaced by time, it only renews and renders them more conspicuous.

If, from this grand picture of resemblances exhibited in animated Nature, as constituting but one family, we pass to that of the differences, where each species claims a separate apartment, and a distinct portrait, we shall find, that, with the exception of a few large kinds, such as the elephant, the rhinoceros, the hippopotamus, the tiger, and the lion, which ought to have particular

cular frames, all the others seem to unite with their neighbours, and to form groups of degraded similarities, or genera, represented by our nomenclators in a net-work of figures, some of which are supported by the feet, others by the teeth, by the hair, and others by relations still more minute: And even the apes, whose form seems to be most perfect, or approaches nearest to that of man, present themselves in a group, and require the utmost attention to be distinguished from each other; because the privilege of separate species depends less on figure than magnitude; and man himself, though a distinct species, and infinitely removed from that of all other animals, being only of a middle size, has a greater number of neighbouring species than the very large kinds. In the history of the orang-outang, we shall find, that, if figure alone be regarded, we might consider this animal as the first of apes, or the most imperfect of men; because, except the intellect, the orang-outang wants nothing that we possess, and, in his body, differs less from man than from the other animals which receive the denomination of *apes*.

Hence mind, reflection, and language depend not on figure, or on the organization of the body. These are endowments peculiar to man. The orang-outang, though he neither thinks nor speaks, has a body, members, senses, a brain, and a tongue perfectly similar to those of man: He counterfeits every human movement; but he

he performs no action that is characteristic of man. This imperfection is perhaps owing to want of education, or to an error in our judgment. You compare, it may be said, an ape in the woods with a man in polished society. But, in order to form a proper judgment of them, a savage man and an ape should be viewed together; for we have no just idea of man in a pure state of nature. The head covered with bristly hair, or with curled wool; the face veiled with a long beard; two crescents of hairs still grosser, by their length and prominency, contract the front, and not only obscure the eyes, but sink and round them like those of the brutes; the lips thick and protruded; the nose flat; the aspect wild and stupid; the ears, the body, and the members covered with hair; the breasts of the female long and flabby, and the skin of her belly hanging down as far as her knees; the children wallowing in filth, and crawling on their hands and feet; the father and mother sitting squat on their hams, both hideous, and besmeared with corrupted grease. This sketch, drawn from a savage Hottentot, is a flattering portrait; for the distance between man in a pure state of nature and a Hottentot, is greater than between a Hottentot and us. But, if we want to compare the ape to man, we must add the relations of organization, the conformities of temperament, the vehement appetite of the males for the females, the same structure of genitals in both sexes, the

periodic courses of the female, the voluntary or forced intermixture of the Negresses with the apes, the produce of which has entered into both species ; and then consider, on the supposition that they are not the same, how difficult it is to perceive the interval by which they are separated.

If our judgment were limited to figure alone, I acknowledge that the ape might be regarded as a variety of the human species. The Creator has not formed man's body on a model absolutely different from that of the mere animal. He has comprehended the figure of man, as well as that of all other animals, under one general plan. But, at the same time that he has given him a material form similar to that of the ape, he has penetrated this animal body with a divine spirit. If he had conferred the same privilege, not on the ape, but on the meanest, and what appears to us to be the worst constructed animal, this species would soon have become the rival of man ; it would have excelled all the other animals by thinking and speaking. Whatever resemblance, therefore, takes place between the Hottentot and the ape, the interval which separates them is immense ; because the former is endowed with the faculties of thought and of speech.

Who will ever be able to ascertain how the organization of an idiot differs from that of another man? Yet the defect is certainly in the material



terial organs, since the idiot is likewise endowed with a soul. Now, as between one man and another, where the whole structure is perfectly similar, a difference so small that it cannot be perceived is sufficient to prevent thought, we should not be surpris'd that it never appears in the ape, who is deprived of the necessary principle.

The soul, in general, has a proper action totally independent of matter. But, as its divine author has been pleas'd to unite it to the body, the exercise of its particular acts depends on the state of the material organs. This dependence is apparent, not only from the case of idiots, but from people affected with delirium, from sleep, from new born infants, who cannot think, and from very old men, whom the power of thinking has forsaken. It is even probable, that the chief effect of education consists not so much in instructing the mind, or maturing its operations, as in modifying the material organs, and bringing them into the most favourable state for the exercise of the sentient principle. Now, there are two kinds of education, which ought to be carefully distinguished, because their effects are extremely different; the education of the individual, which is common to man and the other animals; and the education of the species, which appertains to man alone. A young animal, both from natural incitements and from example, learns, in a few weeks, to do every thing its pa-

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rents can perform. To an infant, several years are necessary before it acquires this degree of perfection; because, when brought forth, it is incomparably less advanced, weaker, and more imperfectly formed, than the smaller animals. In early infancy, the mind is nothing, when compared to the powers it will afterwards acquire. In receiving individual education, therefore, the infant is much slower than the brute; but, for this very reason, it becomes susceptible of that of the species. The multiplicity of succours, the continual cares, which the state of imbecillity for a long time requires, cherish and augment the attachment of the parents. In training the body, they cultivate the mind. The time employed in strengthening the former gives an advantage to the latter. The bodily powers of most animals are more advanced in two months than those of the infant in two years. Hence the time employed in bestowing on the infant its individual education, is as twelve to one, without estimating the fruits of what follows after this period, without considering that animals separate from their parents as soon as they can provide for themselves, and that, not long after this separation, they know each other no more. All education ceases the moment that the aid of the parents becomes unnecessary. This time of education being so short, its effects must be very limited: It is even astonishing that the animals acquire, in two months, all that is necessary for  
them

them during the rest of life: If we suppose that a child, in an equal period, were strong enough to quit his parents, and never return to them, would there be any perceptible difference between this infant and a brute? However ingenious the parents, they would not have time sufficient to modify and prepare his organs, or to establish the smallest communication of thought between their minds and his. They could not excite his memory by impressions frequently enough reiterated. They could not even mollify or unfold the organs of speech. Before a child can pronounce a single word, his ears must be struck many thousand times with the same sound; and, before he can make a proper application of it, the same combination of the word and the object to which it relates, must be many thousand times presented to him. Education, therefore, which alone can develop the powers of the mind, must be uninterruptedly continued for a long time. If stopt, not at two months, as in the animals, but even at the age of one year, the mind of the infant, having received no instruction, would remain inactive like that of the idiot, the defect of whose organs prevents the reception of knowledge. This reasoning would acquire redoubled strength, if the infant were born in a pure state of nature, if it were confined to the sole tutorage of a Hottentot mother, and were enabled by its bodily powers to separate from her at the age of two months, Would it not

sink below the condition of an idiot, and, with regard to its material part, be entirely levelled with the brutes? But in this condition of nature, the first education requires an equal time as in the civilized state; for in both, the infant is equally feeble, and equally slow in its growth; and, consequently, demands the care of its parents during an equal period. In a word, if abandoned before the age of three years, it would infallibly perish. Now, this necessary, and so long continued intercourse between the mother and child, is sufficient to communicate to it all that she possesses: And though we should falsely suppose, that a mother, in a state of nature, possesses nothing, not even the faculty of speech, would not this long intercourse with her infant produce a language? Hence a state of pure nature, in which man is supposed neither to think nor speak, is imaginary, and never had an existence. This necessity of a long intercourse between parents and children produces society in the midst of a desert. The family understand each other both by signs and sounds; and this first ray of intelligence, when cherished, cultivated, and communicated, unfolds, in process of time, all the germs of cogitation. As this habitual intercourse could not subsist so long, without producing mutual signs and sounds, these signs and sounds, always repeated and gradually engraven on the memory of the child, would become permanent expressions. The catalogue of words, though  
short;

short, forms a language which will soon extend as the family augments, and will always follow, in its improvement, the progress of society. As soon as society begins to be formed, the education of the infant is no longer individual, since the parents communicate to it not only what they derive from Nature, but likewise what they have received from their progenitors, and from the society to which they belong. It is no longer a communication between detached individuals, which, as in the animals, would be limited to the transmission of simple faculties, but an institution of which the whole species participate, and whose produce constitutes the basis and bond of society.

Even among brute animals, though deprived of the sentient principle, those whose education is longest appear to have most intelligence. The elephant, which takes the longest time in acquiring its full growth, and requires the succour of its mother during the whole first year of its existence, is also the most intelligent of all animals. The Guiney-pig, which is full grown, and capable of generating at the age of three weeks, is for this reason alone, perhaps, one of the most stupid species. With regard to the ape, whose nature we are endeavouring to ascertain, however similar to man, he is so strongly marked with the features of brutality, that it is distinguishable from the moment of his birth. He is then proportionally stronger and better formed than

than the infant : He grows faster : The support of his mother is necessary for a few months only : His education is purely individual, and consequently as limited as that of the other animals.

Hence the ape, notwithstanding his resemblance to man, is a brute, and, instead of approaching our species, holds not the first rank among the animals ; because he is by no means the most intelligent. The relation of corporeal resemblance alone has given rise to the prejudice in favour of the great faculties of the ape. He resembles man, it has been said, both externally and internally ; and, therefore, he must not only imitate us, but do every thing which we perform. We have seen, that all the actions which ought to be denominated *human*, are relative to society ; that they depend, at first, on the mind, and afterwards on education, the physical principle of which is the long intercourse that necessarily subsists between the parents and children ; that, in the ape, this intercourse is very short ; that, like the other animals, he receives only an individual education ; and that he is not susceptible of that of the species. Of course, he can perform no human actions, since no action of the ape has the same principle, or the same design. With regard to imitation, which appears to be the most striking character of the ape-kind, and which the vulgar have attributed to him as a peculiar talent, before we decide, it is necessary to inquire whether this imitation be spontaneous or forced. Does the ape imitate us from inclination,

tion, or because, without any exertion of the will, he feels the capacity of doing it? I appeal to all those who have examined this animal without prejudice, and I am convinced that they will agree with me, that there is nothing voluntary in this imitation. The ape, having arms and hands, uses them, as we do, but without thinking of us. The similarity of his members and organs necessarily produces movements, and sometimes successions of movements, which resemble ours. Being endowed with the human structure, the ape must move like man. But the same motions imply not that he acts from imitation. Two bodies which receive the same impulse, two similar pendulums or machines, will move in the same manner. But these bodies or machines can never be said to imitate each other in their motions. The ape and the human body are two machines similarly constructed, and necessarily move nearly in the same manner. But parity is not imitation. The one depends on matter, and the other on mind. Imitation presupposes the design of imitating. The ape is incapable of forming this design, which requires a train of thinking; and, consequently, man, if he inclines, can imitate the ape; but the ape cannot even incline to imitate man.

This parity is only the physical part of imitation, and by no means so complete as the similitude, from which, however, it proceeds as an immediate effect. The ape has a greater resemblance

blance to us in his body and members, than in the use he makes of them. By observing him attentively, we easily perceive, that all his movements are brisk, intermittent, and precipitous ; and that, in order to compare them with those of man, we must adopt another scale, or rather a different model. All the actions of the ape are derived from his education, which is purely animal. To us they appear ridiculous, inconsequent, and extravagant ; because, by referring them to our own, we assume a false scale, and a deceitful mode of measuring. As his nature is vivacious, his temperament warm, his dispositions petulant, and none of his affections have been softened or restrained by education, all his habitudes are excessive, and resemble more the movements of a maniac than the actions of a man, or even of a peaceable animal. It is for this reason that we find him indocile, and that he receives with difficulty the impressions we wish to make on him. He is insensible to caresses, and is rendered obedient by chastisement alone. He may be kept in captivity, but not in a domestic state. Always melancholy, stubborn, repugnant, or making grimaces, he may be said to be rather conquered than tamed. The species, of course, have never been rendered domestic in any part of the world, and, consequently, is farther removed from man than most other animals : For docility implies some analogy between the giver and the receiver of instruction.



struction. It is a relative quality, which cannot be exerted but when there is a certain number of common faculties on both sides, that differ only between themselves, because they are active in the master, and passive in the scholar. Now, the passive qualities of the ape have less relation to the active qualities of man than those of the dog or elephant, who require no more than good treatment to communicate to them the delicate and gentle sensations of faithful attachment, voluntary obedience, grateful service, and unreserved devotion.

In relative qualities, therefore, the ape is farther removed from the human race than most other animals. His temperament is also very different. Man can inhabit every climate. He lives and multiplies in the northern as well as the southern regions of the earth. But the ape exists with difficulty in temperate countries, and can multiply only in those which are warm. This difference of temperament implies others in organization, which, though concealed, are not the less real : It must likewise have a great influence on his natural dispositions. The excess of heat, which is necessary to the constitution and vigour of this animal, renders all his qualities and affections inordinate. No other cause is requisite to account for his petulance, his falaciousness, and his other passions, which appear to be equally violent and disorderly.

Thus

Thus the ape, which philosophers, as well as the vulgar, have regarded as a being difficult to define, and whose nature was at least equivocal, and intermediate between that of man and the animals, is, in fact, nothing but a real brute, endowed with the external mark of humanity, but deprived of thought, and of every faculty which properly constitutes the human species ; a brute inferior to many others in his relative powers, and still more essentially different from the human race by his nature, his temperament, and the time necessary to his education, gestation, growth, and duration of life ; that is, by all the real habitudes which constitute what is called *Nature* in a particular being.

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# The ORANG OUTANGS, or the PONGO\* and JOCKO†.

**W**E shall give the history of these two animals under one article; because it is not improbable they belong to the same species. Of all

\* In the East Indies this animal is called *Orang-outang*; in Lowando, a province of Congo, *Pongo*; and, in some parts of the East Indies, according to Kjoep, chap. 86. quoted by Linnaeus, *Kukurlucko*.

Homo sylvestris. *Orang-outang*; *Bontius*, p. 84.

Satyri sylvestres. *Orang-outang dicti*; *Icones arborum, ut et animalium*, Lugd. Bat. apud Vanderaa, tab. antepenult.

Traglodytes. Homo nocturnus; *Linn. Syst.* p. 33.

Oran-outan; *Beakman's Travels*.

Oerangs-octangs; *Voyages de Gauthier Schoutten aux Indes Orientales*.

Drill; *Charleton, Exercit.* p. 16.

Smitten; *Bosman, Voyage de Guinée*, p. 528.

*Barris*, according to several voyagers, *Pongo*; *Battel, Purchafs*, &c.

† *Jocko, Enjocko*, the names of this animal in Congo; *Baris* in Guiney, according to *Pyrard*, p. 369. *Nieremberg*, p. 179.

*Chimpanzee*; *Scotin's print*, 1738.

Man of the wood; *Edwards*, p. 213.

*Barrys*; *Barbet's Guiney*, p. 101.

*Quojas marrou*; *ibid.* p. 115.

*Satyrus Indicus*; *Tulpii observ. med. lib. 3. c. 56*.

Homo sylvestris, *Ourang-outang*; *Tyson's anatomy of a pigmy*, p. 108.

*Simia fatyrus, ecaudata, ferruginea, lacertorum pilis reversis, natibus testis*; *Linn. Syst. Nat.* p. 34.

L'homme

all the apes, they have the greatest resemblance to man; and, consequently, deserve particular attention. We have seen the small orang-outang, or jocko, alive, and have preserved its skin. But, of the pongo, or great orang-outang, we can only give the relations of travellers. If these were faithful, if they were not often obscure, false, and exaggerated, we could not hesitate in pronouncing it to be a different species from the jocko, a species more perfect, and approaching nearer to that of man. Bontius, who was chief physician of Batavia, and has left us some excellent remarks on the natural history of that part of the Indies, says expressly †, that he saw, with admiration, some individuals of this species

L'homme de bois, simia unguibus omnibus planis et rotundis, caesarie faciem cingente; *Baiſſon, quad. p. 134.*

Mr Pennant, in his Synopsis of Quadrupeds, p. 96. makes but one species of the pongo and jocko, of which he gives the following description:

*Great ape* with a flat face, and a deformed resemblance of the human; ears exactly like those of a man; hair on the head longer than on the body; body and limbs covered with reddish and shaggy hair; longest hair on the back, thinnest on the fore parts; face and paws swarthy; buttocks covered with hair.

† Quod meretur admirationem, vidi ego aliquot utriusque sexus erecte incedentes imprimis (cujus effigiem hic exhibeo) satyram femellam tanta verecundia ab ignotis sibi hominibus occultentem, tum quoque faciem manibus (liceat ita dicere) tegentem, ubertimque lacrymantem, genitus cientem, et caeteros humanos actus exprimentem, ut nihil humani ei decesse diceres praeter loquelam. . . . Nomen ei indunt *Ourang-outang*, quod hominem silvae significat; *Jac. Bont. Hist. nat. Ind. cap. 32. p. 84. et 85.*

species walking on two feet, and, among others, a female (of which he gives a figure) who seemed to have a sense of modesty, who covered herself with her hand when men appeared of whom she had no acquaintance, who wept, groaned, and seemed to want nothing of humanity but the faculty of speech. Linnaeus \*, upon the authority of Kjoep, and some other voyagers, tells us, that the orang-outang is not deprived of this faculty ; that he thinks, speaks, and expresses himself by a kind of hissing words. This author calls him *homo nocturnus*, and, at the same time, gives such a description of him, that it is impossible to ascertain whether he is a brute or a man. It may, however, be remarked, that, according to Linnaeus, this being, whatever he is, exceeds not the half of the human stature ; and, as Bontius takes no notice of the magnitude of his orang-outang, we may presume that they are the same. But this orang-outang of Linnaeus and Bontius would not be the true kind, which is larger than the tallest man. - Neither is he the jocko, which I have seen

\* *Homo nocturnus. Homo sylvestris Orang-outang Bontii. Corpus album, incessu erectum, nostro dimidio minus, pili albi contortuplicati, oculi orbiculati, iridi pupillaeque aurea. Palpebrae antice incumbentes cum membrana nictitante. Visus lateralis, nocturnus. Aetas viginti quinque annorum. Die caecutit, latet ; noctu videt, exit, furatur. Loquitur sibilo, cogitat, credit sui causa factam tellurem, se aliquando iterum fore imperantem, si fides peregrinatoribus. . . . Habitat in Javae, Amboinae, Ternatae speluncis ; Linn. Syst. nat. edit. x. p. 24.*

seen alive ; for, though he was of the same size with that described by Linnaeus, he differed in every other character. I saw him frequently, and I can affirm, that he neither spoke, nor expressed himself by hissing, and that he did nothing which a well trained dog could not perform. Besides, he differs in almost every article from Linnaeus's description of the orang-outang, and corresponds better with the *satyrus* of the same author. For these reasons, I suspect the truth of the description of this *homo nocturnus*. I even doubt of his existence. It has probably been a white Negro, a Chacrelas \*, whom the voyagers quoted by Linnaeus have superficially examined and falsely described. For the Chacrelas, like the *homo nocturnus* of this author, have white, woolly, frizled hair, red eyes, a feeble voice, &c. But they are men, and neither hiss, nor are they pigmies of thirty inches high: They think and act like other men, and are also of the same size.

Throwing aside, therefore, this ill described being, and supposing a little exaggeration in the relation of Bontius concerning the modesty of his female orang-outang, there only remains a brute creature, an ape, of which we shall find more pointed information in writers of better credit. Edward Tyson †, a celebrated English anatomist, who has given an excellent description

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\* See vol. 3. Art. *Varieties of the human species*.

† The anatomy of a Pigmy.

both of the external and internal parts of the orang-outang, tell us, that there are two species, and that the one he described is not so large as the other which is called *barris* \* or *baris* by travellers, and *drill* by the British. This *barris* or *drill* is the large orang-outang of the East Indies, or the pongo of Guiney. *Gassendi* having advanced, upon the authority of a voyager called *St Amand*, that, in the island of Java, there was a creature which constituted the shade between man and the ape, the fact was strenuously denied. To prove it, *Peirefc* produced a letter from M. Noël, (*Natalis*), a physician who resided in Africa, from which it appeared †, that large apes were found in Guiney under the denomination of *barris*, who walk on two legs, have much more gravity and intelligence than the other species, and are extremely desirous of women. *Darcos*, and afterwards *Nieremberg* ‡ and *Dapper* §, give nearly the same account of the *barris*. *Battel* calls it *pon-*

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\* The *baris* or *barris*, which they describe to be much taller than our animal, probably may be what we call a *drill*; *Tyson, anat. of a pigmy, p. 1.*

† Sunt in Guinea simiae, barba procera canaque, et pexa propemodum venerabiles; incedunt lente, ac videntur praeter ceteris sapere; maximi sunt et *barris* dicuntur; pollent maxime judicio, semel dumtaxat quidpiam docendi. Velle induti illico bipedes incedunt. Scite ludunt fistula, cythara, aliisque id genus. . . Foeminae denique in iis patiuntur menstrua, et mares mulierum sunt appetentissimi; *Gassendi, lib. 5.*

‡ *Nieremberg, Hist. Nat. Peregr. lib. 9. cap. 44.*

§ *Descript. de l'Afrique, par Dapper, p. 239.*

go, and describes it in the following manner :  
' The greatest of these two monsters is called  
' *Pongo*, in their language ; and the lesser is cal-  
' led *Engeco*. This *Pongo* is exactly propor-  
' tioned like a man ; but he is more like a  
' giant in stature ; for he is very tall, and  
' hath a man's face, hollow eyed, with long hair  
' upon his brows. His face and ears are with-  
' out hair, and his hands also. His body is full of  
' hair, but not very thick, and it is of a dunnish  
' colour. He differeth not from a man, but in  
' his legs, for they have no calf. He goeth al-  
' ways upon his legs, and carrieth his hands  
' clasped on the nap of his neck, when he goeth  
' upon the ground. They sleep in the trees,  
' and build shelters for the rain. They feed  
' upon fruit that they find in the woods, and  
' upon nuts, for they eat no kind of flesh. They  
' cannot speak, and have no understanding more  
' than a beast. The people of the country, when  
' they travel in the woods, make fires where  
' they sleep in the night ; and in the morning,  
' when they are gone ; the Pongos will come  
' and sit about the fire, till it goeth out ; for  
' they have no understanding to lay the wood  
' together. They go many together, and kill  
' many Negroes that travail in the woods. Ma-  
' ny times they fall upon the elephants, which  
' come to feed where they be, and so beat them  
' with their clubbed fists, and pieces of wood,  
' that



that they will run roaring away from them. Those Pongos are never taken alive, because they are so strong, that ten men cannot hold one of them; but yet they take many of their young ones with poisoned arrows. The young Pongo hangeth on his mother's belly, with his hands fast clasped about her; so that, when the country people kill any of the females, they take the young one, which hangeth fast upon his mother\*.' It is from this explicit passage that I have derived the names *pongo* and *jocko*. Battel farther remarks, that, when one of these animals dies, the others cover his body with branches and leaves of trees. Purchas adds in a note, that, in the conversations he had with Battel, he learned that a pongo carried off a young Negro from him, who lived a whole year in the society of these animals; that, on his return, the Negro said, that they had never injured him; that they were generally as tall as a man, but much thicker; and that they were nearly double the volume of an ordinary man. Jobson assures us, that, in places frequented by these animals, he saw a kind of habitations composed of interlaced branches of trees, which would at least protect them from the scorching rays of the sun †. 'The apes of Guiney,' says Bosman ‡, 'which are called *smitten* by the Flems, with,

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' mith,

\* Purchas's Pilgrims, part. 2. p. 982.

† Hist. gen. des Voyages, tom. 3. p. 295.

‡ Voyage de Guinée, p. 258.

' mish, are of a yellow colour, and grow to a  
 ' great size. I saw with my eyes one which  
 ' was five feet high. These apes have an ugly  
 ' appearance, as well as those of another species  
 ' perfectly similar in every respect, except that  
 ' four of them would hardly be as large as one  
 ' of the former kind. . . . They are capable  
 ' of being taught almost every thing we choose.'  
 ' Gauthier Schoutten remarks \*, ' that the apes  
 ' called *orang-outangs* by the Indians are nearly  
 ' of the same figure and size with men, only  
 ' their back and reins are covered with hair,  
 ' though there is no hair on the fore part of  
 ' their bodies; that the females have two large  
 ' breasts; that their visage is coarse, their nose  
 ' flat, and even sunk, and their ears like those  
 ' of men; that they are robust and active; that  
 ' they defend themselves against armed men;  
 ' that they are passionately fond of women, who  
 ' cannot pass through the woods, without being  
 ' suddenly attacked and ravished by these apes.  
 Dampier, Froger, and other travellers, assure us,  
 that the orang-outangs carry off girls of eight  
 or ten years of age to the tops of trees, and that  
 it is extremely difficult to rescue them. To these  
 testimonies we may add that of M. de la Brosse,  
 who assures us, in his voyage to Angola in the  
 year 1738, that the orang-outangs, which he  
 calls *quimpezés*, ' endeavour to surprize the Ne-  
 ' gresses

\* Voyage de Gaut. Schoutten.

gresses, whom they detain for the purpose of enjoying them, and entertain them plentifully. I knew a Negress at Loango who remained three years with these animals. They grow from six to seven feet high. They erect huts, and use bludgeons in their own defence. They have flat faces, broad flat noses, flat ears, skins clearer than those of Molattoes, long thinly scattered hairs on several parts of their bodies, bellies extremely tense, and flat heels raised behind about half an inch. They walk upon two or four feet, at pleasure. We purchased two young ones, a male of fourteen months of age, and a female of twelve,' &c.

We have thus enumerated the most certain facts we could collect concerning the great *orang-outang* or *pongo*; and, as magnitude is the chief character by which it differs from the *jocko*, I persist in thinking that they are of the same species: For two circumstances are at least possible: 1. The *jocko* may be a permanent variety, a race much smaller than that of the *Pongo*. In fact, they both inhabit the same climate; they live in the same manner; and, of course, ought to resemble each other in every article, since they both receive equally the influences of the same soil and sky. In the human species, have we not an example of a similar variety? The Laplander and Fin, though they live under the same climate, differ nearly as much in stature,

and much more in other qualities, than the jocko differs from the great orang-outang. 2. The jocko, or small orang-outang, which we have seen alive, as well as those of Tulpius, Tyson, and others which have been brought to Europe, were all, perhaps, young animals, who had acquired only a part of their growth. The one I saw was about two feet and a half high; and the Sieur Nonfoux, to whom it belonged, assured me that it exceeded not two years of age. On the supposition, therefore, that its growth were proportional to that of man, it might, if it had lived, have arrived at the height of more than five feet. The orang-outang of Tyson was still younger; for it was only about two feet high, and its teeth were not perfectly formed. Those of Tulpius and Edwards were nearly of the same stature with the one I saw. Hence it is probable, that these young animals, if possessed of liberty in their own climate, would have acquired with age the same height and dimensions which travellers have ascribed to the great orang-outang. Of course, till better information be received, we must regard these two animals as constituting but one species.

The orang-outang which I saw, walked always on two feet, even when carrying things of considerable weight. His air was melancholy, his gait grave, his movements measured, his dispositions gentle, and very different from those of other apes. He had neither the impatience of

of the Barbary ape, the maliciousness of the baboon, nor the extravagance of the monkeys. It may be alledged, that he had the benefit of instruction; but the other apes, which I shall compare with him, were educated in the same manner. Signs and words were alone sufficient to make our orang-outang act: But the baboon required a cudgel, and the other apes a whip; for none of them would obey without blows. I have seen this animal present his hand to conduct the people who came to visit him, and walk as gravely along with them as if he had formed a part of the company. I have seen him sit down at table, unfold his towel, wipe his lips, use a spoon or a fork to carry the victuals to his mouth, pour his liquor into a glass, and make it touch that of the person who drank along with him. When invited to take tea, he brought a cup and saucer, placed them on the table, put in sugar, poured out the tea, and allowed it to cool before he drank it. All these actions he performed, without any other instigation than the signs or verbal orders of his master, and often of his own accord. He did no injury to any person: He even approached company with circumspection, and presented himself as if he wanted to be caressed. He was very fond of dainties, which every body gave him: And, as his breast was diseased, and he was afflicted with a teasing cough, this quantity of sweetmeats undoubtedly contributed to shorten his life. He lived one  
summer

summer in Paris, and died in London the following winter. He eat almost every thing; but preferred ripe and dried fruits to all other kinds of food. He drank a little wine; but spontaneously left it for milk, tea, or other mild liquors. Tulpius\*, who gives a good description and a figure of one of these animals, that had been presented to Frederick Henry, Prince of Orange, makes nearly the same observations with regard to it, as I have already related. But, if we wish to distinguish the instincts peculiar

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\* Erat hic satyrus quadrupes, sed ab humana specie quam prae se fert vocatur Indis *ourang-outang*, homo silvestris, uti Africanis *Quojasurrou*: Exprimens longitudine puerum trimum, ut crassitie sexennem; corpore erat nec obeso nec gracili, sed quadrato, habilissimo tamen ac perniciosissimo. Artubus vero tam strictis et masculis adeo vallis, ut quidvis et auderet et posset. Anterius undique glaber, at pone hirsutus ac nigris crinibus obsitus. Facies mentiebatur hominem; sed nares siniae et aduncae rugosam et edentulam anum. Aures vero nil discrepant ab humana forma, uti neque pectus ornatum utrinque mamma praetumida (erat enim sexus foeminei). Venter habebat umbilicum profundiozem, et artus, cum superiores tum inferiores, tam exactam cum homine similitudinem ut vix ovum ovo videris similis. Nec cubito defuit debita commissura, nec manibus digitorum ordo; nedum pollicis figura humana vel cruribus surae vel pedi calcis fulcrum. Quae concinna ac decens membrorum forma in causa fuit, quod multoties incederet erectus, neque attolleret minus gravate, quam transferret facile quaecumque gravissimi oneris pondus. Bibiturus prehendebat canthari ansam manu altera; alteram vero vasis fundo supponens, abstergebat deinde madorem labiis relictum.—Eandem dexteritatem observabat cubitum iturus; inclinans caput in pulvinar et corpus stragulis convenienter operiens, &c.; *Tulpii, Observ. Medicas, lib. 3. c. 56.*

to this animal from the improvement it receives by education, we must compare the facts of which we have been eye-witnesses, with the relations of travellers who have seen it in a state of nature, in the full possession of liberty, and in captivity. M. de la Brosse, who purchased from a Negro two orang-outangs, whose age exceeded not twelve months, does not say that they had been instructed by the Negro. It appears, on the contrary, that they spontaneously performed most of the actions above recited. 'These animals,' he remarks, 'have the instinct of sitting at table like men. They eat every kind of food, without distinction. They use a knife, a fork, or a spoon, to cut or lay hold of what is put in their plate. They drink wine and other liquors. We carried them aboard. At table, when they wanted any thing, they made themselves be understood to the cabin-boy: And, when the boy refused to give them what they demanded, they sometimes became enraged, seized him by the arm, bit, and threw him down. . . . . The male was seized with sickness on the road. He made himself be attended as a human being. He was even bled twice in the right arm: And, whenever he found himself afterwards in the same condition, he held out his arm to be bled, as if he knew that he had formerly received benefit from that operation.'

Henry

Henry Grosse informs us, vol. i. pag. 233. That some places towards the hills are covered with immense impenetrable forests, which afford a shelter for wild beasts of all sorts. But in that which forms the inland boundary of the Carnatic Rajah's dominions, there is one singular species of creatures, of which I had heard much in India, and the truth of which the following fact, that happened some time before my arrival there, may serve for an attestation.

Vancajee, a merchant of that country, and an inhabitant on the sea coast, sent up to Bombay to the then governour of it, Mr Horne, a couple of those creatures before mentioned, as a present, by a coasting vessel, of which one Captain Boag was the master, and the make of which, according to his description, and that of others, was as follows.

They were scarcely two feet high, walked erect, and had perfectly a human form. They were of a fallow white, without any hair, except in those parts that it is customary for mankind to have it. By their melancholy, they seemed to have a rational sense of their captivity, and had many of the human actions. They made their bed very orderly in the cage in which they were sent up, and on being viewed, would endeavour to conceal, with their hands, those parts that modesty forbids manifesting. The joints of their knees were not re-entering, like those of monkeys, but saliant,  
like



‘ like those of men; a circumstance they have  
‘ (if I mistake not), in common with the orang-  
‘ outangs in the eastern parts of India, in Su-  
‘ matra, Java, and the spice-islands, of which  
‘ these seem to be the diminutives, though with  
‘ nearer approaches of resemblance to the human  
‘ species. But, though the navigation from the  
‘ Carnatic coast to Bombay is of a very short  
‘ run, of not above six or seven degrees, whether  
‘ the sea air did not agree with them, or that  
‘ they could not brook their confinement, or that  
‘ Captain Boag had not properly consulted their  
‘ provisions, the female sickening first, died; and  
‘ the male giving all the demonstrations of grief,  
‘ seemed to take it to heart so, that he refused  
‘ to eat, and, in two days after, followed her.  
‘ The Captain, on his return to Bombay, report-  
‘ ing this to the governour, was by him asked,  
‘ What he had done with the bodies? He said  
‘ he had flung them over-board. Being further  
‘ asked, why he did not keep them in spirits?  
‘ he replied bluntly, that he did not think of it.  
‘ Upon this, the governour wrote afresh to Van-  
‘ cajee, and desired him to procure another  
‘ couple, at any rate, as he should grudge no  
‘ expence to be master of such a curiosity. Van-  
‘ cajee’s answer was, he should very willingly  
‘ oblige him, but that he was afraid it would not  
‘ be in his power: That these creatures came  
‘ from a forest about seventy leagues up the  
‘ country, where the inhabitants would sometimes  
‘ catch

‘ catch them on the skirts of it; but that they  
 ‘ were so exquisitely cunning and sly, that this  
 ‘ scarcely happened once in a century.’

Francis Pyrard \* relates, ‘ That, in the pro-  
 ‘ vince of Sierra Leona, there is a species of a-  
 ‘ nimals called *baris*, who are strong and well  
 ‘ limbed, and so industrious, that, when proper-  
 ‘ ly trained and fed, they work like servants;  
 ‘ that they generally walk on the two hind feet;  
 ‘ that they pound any substances in a mortar;  
 ‘ that they go to bring water from the river in  
 ‘ small pitchers, which they carry full on their  
 ‘ heads. But, when they arrive at the door, if  
 ‘ the pitchers are not soon taken off, they allow  
 ‘ them to fall; and, when they perceive the pit-  
 ‘ cher overturned and broken, they weep and  
 ‘ lament.’ Father Jarric, quoted by Nierem-  
 berg †, says the same thing, nearly in the same  
 terms. With regard to the education of these  
 animals, the testimony of Schoutten ‡ accords  
 with that of Pyrard. ‘ They are taken,’ he re-  
 marks, ‘ with snares, taught to walk on their  
 ‘ hind feet, and to use their fore feet as hands in  
 ‘ performing different operations, as rinsing  
 ‘ glasses, carrying drink round the company,  
 ‘ turning a spit,’ &c. ‘ I saw, at Java,’ says Guat ||,  
 ‘ a very extraordinary ape. It was a female. She  
 ‘ was

\* Voyage de Francois Pyrard, tom. 2. p. 331.

† Euf. Nieremberg. Hist. Nat. peregrin. lib. 9. cap. 45.

‡ Voyages de Guat Schoutten aux Indes Orientales.

|| Voyages de Fr. le Guat, tom, 2. p. 96.

‘ was very tall, and often walked erect on her  
‘ hind feet. On these occasions, she concealed  
‘ with her hands the parts which distinguish the  
‘ sex. Except the eye-brows, there was no hair  
‘ on her face, which pretty much resembled the  
‘ grotesque female faces I saw among the Hotten-  
‘ tots at the Cape. She made her bed very neat-  
‘ ly every day, lay upon her side, and covered  
‘ herself with the bed-clothes. . . . When her  
‘ head ached, she bound it up with a handker-  
‘ chief; and it was amusing to see her thus  
‘ hooded in bed. I could relate many other  
‘ little articles which appeared to be extremely  
‘ singular. But I admired them not so much as  
‘ the multitude; because, as I knew the design  
‘ of bringing her to Europe to be exhibited as a  
‘ shew, I was inclined to think that she had been  
‘ taught many of these monkey-tricks, which  
‘ the people considered as being natural to the  
‘ animal. She died in our ship, about the lati-  
‘ tude of the Cape of Good Hope. The figure  
‘ of this ape had a very great resemblance to  
‘ that of man,’ &c. Gemelli Carreri tells us, that  
‘ he saw one of these apes, which cried like an  
‘ infant, walked upon its hind feet, and carried a  
‘ matt under his arm to lie down and sleep upon.  
‘ These apes, he adds, appear, in some respects, to  
‘ have more sagacity than men: For, when the  
‘ fruits on the mountains are exhausted, they  
‘ come down to the sea-coasts, where they feed  
‘ upon

upon crabs, oysters, and other shell-fishes. There is a species of oyster called *taclovo*, which weighs several pounds, and commonly lies open on the shore. The ape, when he wants to eat one of them, being afraid lest it should close on his paw, puts a stone into the shell, which prevents it from shutting, and then eats the oyster at his ease.

‘The apes along the banks of the river Gambia,’ says Froger, ‘are larger and more mischievous than in any other part of Africa: The Negroes dread them, and cannot travel alone in the country, without running the hazard of being attacked by these animals, who often present them with a stick, and force them to fight. I have heard the Portuguese say, that they have frequently seen them hoist up young girls, about seven or eight years old, into trees, and that they could not be wrested from them without a great deal of difficulty. The most part of the Negroes imagine them to be a foreign nation come to inhabit their country, and that they do not speak for fear of being compelled to work.’

‘We might dispense,’ another traveller \* remarks, ‘with seeing a number of apes at Macacar; because a rencounter with them is often fatal. It is necessary to be always well armed to defend ourselves against their attacks. . . .

‘They

\* Descript. historique du royaume de Macacar, p. 51.

‘ They have no tail, and walk always erect on their two hind feet, like men.’

These are nearly all the facts, concerning this animal, which have been related by voyagers who are least credulous, and deserve most credit. I have quoted the passages entire, because every article is important in the history of a brute which has so great a resemblance to man. And, that we may be enabled to ascertain the nature of this animal with the greater precision, we shall now mark the differences and conformities which make him approach or recede from the human species. He differs from man externally by the flatness of his nose, by the shortness of his front, and by his chin, which is not elevated at the base. His ears are proportionally too large, his eyes too near each other, and the distance between his nose and mouth is too great. These are the only differences between the face of an orang-outang and that of a man. With regard to the body and members, the thighs are proportionally too short, the arms too long, the fingers too small, the palm of the hands too long and narrow, and the feet rather resemble hands than the human foot. The male organs of generation differ not from those of man, except that the prepuce has no *fraenum*. The female organs are extremely similar to those of a woman.

The orang-outang differs internally from the human species in the number of ribs : Man has only twelve ; but the orang-outang has thirteen.

The

The vertebrae of the neck are also shorter, the bones of the pelvis narrow, the buttocks flatter, and the orbits of the eyes sunk deeper. He has no spinal process on the first vertebra of the neck. The kidneys are rounder than those of man, and the ureters have a different figure, as well as the bladder and gall-bladder, which are narrower and longer than in the human species. All the other parts of the body, head, and members, both external and internal, so perfectly resemble those of man, that we cannot make the comparison without being astonished that such a similarity in structure and organization should not produce the same effects. The tongue, and all the organs of speech, for example, are the same as in man; and yet the orang-outang enjoys not the faculty of speaking; the brain has the same figure and proportions; and yet he possesses not the power of thinking. Can there be a more evident proof than is exhibited in the orang-outang, that matter alone, though perfectly organized, can produce neither language nor thought, unless it be animated by a superior principle? Man and the orang-outang are the only animals who have buttocks and calfs of the legs, and who, of course, are formed for walking erect; the only animals who have a broad chest, flat shoulders, and vertebrae of the same structure; and the only animals whose brain, heart, lungs, liver, spleen, stomach, and intestines are perfectly similar,

milar, and who have an appendix vermiformis or blind-gut. In fine, the orang-outang has a greater resemblance to man than even to the baboons or monkeys, not only in all the parts we have mentioned, but in the largeness of the face, the figure of the cranium, of the jaws, of the teeth, and of the other bones of the head and face; in the thickness of the fingers and thumb, the figure of the nails and the number of vertebrae; and, lastly, in the conformity of the articulations, the magnitude and figure of the rotula, sternum, &c. Hence, as there is a greater similarity between this animal and man than between those creatures which resemble him most, as the Barbary ape, the baboon, and monkey, who have all been designed by the general name of *apes*, the Indians are to be excused for associating him with the human species, under the denomination of *orang-outang*, or *wild man*. As some of the facts we have related may appear suspicious to those who never saw this animal, we shall support them by the authority of two celebrated anatomists. Tyson \* and Couper dissected him

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\* The orang-outang has a greater resemblance to man than to the apes or monkeys; because, 1. The hairs on his shoulders are directed downward, and those of the arms upward. 2. His face is broader and flatter than that of the apes. 3. The figure of his ear has a greater resemblance to that of man, except the cartilaginous part, which is thin, as in the apes. 4. His fingers are proportionally thicker than those of the

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with the most scrupulous exactness, and have given us the results of the comparisons they made  
between

the apes. 5. He is in every article formed for walking erect, which is by no means the case with the apes and monkeys. 6. He has thicker buttocks than all the other apes. 7. He has calli to his legs. 8. His breast and shoulders are broader than those of the apes. 9. His heel is longer. 10. He has a cellular membrane, placed, as in man, under the skin. 11. His peritonacum is entire, and not pierced or lengthened, as it is in the apes. 12. His intestines are longer than those of the apes. 13. The intestinal canal is of different diameters, as in man, and not equal or nearly equal, as in the apes. 14. His caecum has a vermicular appendix, as in man; but this appendix is wanting in all the other apes: Besides, the neck of the colon is not so long as that of the apes. 16. The insertions of the biliary and pancreatic ducts have but one common orifice in man and the orang-outang; but, in the monkeys, these insertions are two inches asunder. 16. The colon is longer than that of the apes. 17. The liver is not divided into lobes, as in the apes, but entire, as in man. 18. The biliary vessels are the same as in man. 19. The spleen, and, 20. the pancreas, are the same. 21. The number of lobes in the lungs is the same. 22. The pericardium is attached to the diaphragm, as in man. 23. The cone of the heart is blunter than in the apes. 24. He has no pouches at the bottom of the cheeks, as the other apes and monkeys have. 25. His brain is larger than that of the apes, and exactly formed like the human brain. 26. The cranium is rounder and double the size of that of the monkeys. 27. All the sutures of the cranium are similar to those of man; and the bones called *os triquetra Wormiana* are found in the lambdoid suture, which is not the case in the other apes or monkeys. 28. He has the *os cribriforme* and the *crista galli*, which are wanting in the monkeys. 29. He has the *fella equina* exactly as in man; but, in the apes and monkeys, this part is more elevated and prominent. 30. The *processus pteregoides* is the same as in man; but it is wanting in the apes and monkeys.



between the different parts of his body with that of man. I have translated this article from the

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English,

keys. 31. The temporal bones, and those called *osso bregmaticis*, are the same as in man; but, in the apes and monkeys, these bones are of a different form. 32. The *os zygomaticus* is small; but it is large in the apes and monkeys. 33. The teeth, and particularly the dog-teeth and grinders, are more similar to the human teeth than to those of the apes. 34. The transverse processes of the vertebrae of the neck, and the sixth and seventh vertebrae, have a greater resemblance to those of man than to those of the apes and monkeys. 35. The vertebrae of the neck are not perforated, as in the apes, for the transmission of nerves, but plain and entire, as in man. 36. The vertebrae of the back and their processes are the same as in man; and, in the lower vertebrae, there are only two inferior processes; but, in the apes, there are four. 37. As in man, there are only five lumbar vertebrae; but, in the monkeys, there are six or seven. 38. The spinal processes of the lumbar vertebrae are straight, as in man. 39. The *os sacrum* is composed of five vertebrae, as in man; but, in the apes and monkeys, it consists only of three. 40. The coccyx is composed of four bones, as in man, and these bones are not perforated; but, in the apes and monkeys, the coccyx is composed of a greater number of bones, which are all perforated. 41. In the orang-outang, there are only seven true ribs (*costae verae*), and the extremities of the false ribs (*costae nothae*) are all cartilaginous, and articulated with the bodies of the vertebrae; but, in the apes and monkeys, there are eight true ribs, and the extremities of the false ribs are osseous, and their articulations are placed in the interstices between the vertebrae. 42. The sternum of the orang-outang is as broad as that of man, and not narrow, as in the monkeys. 43. The bones of the four fingers are thicker than those of the apes. 44. The thigh bone is perfectly similar to that of man. 45. The rotula is round, and not long, single, and not double, as it is in the apes. 46. The heel, the *tarsus*, and *metatarsus*, are the same as these of man. 47. The middle toe is not so long as in the apes. 48. The *obliquus inferior capitis*, *per for-*  
*mis*,

English, that the reader may be enabled to form a judgment of the almost entire resemblance between this animal and the human species.

*mis* and *biceps femoris* muscles, are similar to those of man; but they are different in the apes and monkeys, &c.

The orang-outang differs from the human species more than from the apes and monkeys in the following articles. 1. The thumb is proportionally smaller than that of man; but it is larger than that of the other apes. 2. The palm of the hand is longer and narrower than in man. 3. He differs from man and approaches the apes by the length of his toes. 4. He differs from man by having the large toe of the foot removed nearly to the distance of an inch from the next one, and he should be rather considered as a four-handed animal than a quadruped. 5. His thighs are shorter than those of man; and, 6. his arms are longer. 7. The testicles are not pendulous. 8. The epiploon is larger than in man. 9. The gall-bladder is longer and narrower. 10. The kidneys are rounder than in man; and the ureters are also different. 11. The bladder is longer. 12. He has no *fraenum* to the prepuce. 13. The bone in the orbit of the eye is sunk deeper. 14. He wants the two cavities below the *fella turcica*. 15. The mastoid and styloid processes are extremely small. 16. The bones of the nose are flat. 17. The *vertebrae* of the neck are short, as in the apes, flat before and not round, and their spinal processes are not forked, as in man. 18. He has no spinal process in the first *vertebra* of the neck. 19. He has thirteen ribs on each side, and man has only twelve. 20. The *osti ilia* are perfectly similar to those of the apes, being longer, narrower, and less concave than in man. 21. The following muscles are found in man, and are wanting in the orang-outang, *Occipitales, frontales, dilatatores alarum nasi, seu elevatores labii superioris, interspinales colli, glutaei minimi, extensor digitorum pedis brevis, et transversalis pedis*. 22. The muscles which appear not in the orang-outang, and are sometimes, found in man, are those called *pyramidales, caro musculosa quadrata*, the long tendon and fleshy body of the *palmaris*, the *attollens* and *retrahens auriculam*. 23. The orang-outang, has the

cies. I shall only remark, for the better understanding of this note, that the English are not confined, like the French, to a single name to denote *apes*. Like the Greeks, they have two denominations, the one for the apes without tails, which they call *apes* \*, and the other for the apes with tails, which they call *monkeys*. The apes of Tyson could be no other than those which we denominate *pithecus* or *pigmy*, and the *cynocephalus* or Barbary ape. I should likewise remark, that this author gives some resemblances and differences which are not sufficiently accurate.

1. Tyson makes it peculiar to man and the orang-outang, to have the hair on the shoulders directed downward, and that of the arms upward. The hair of most animals, it is true, is directed backward or downward; but there are some exceptions. The sloth and the least anteater have the hair of their anterior parts directed backward, and that of the crupper and reins directed

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rected

the *elevator* muscles of the clavicles like those of the apes, and different from those of man. 24. The following are the muscles by which the orang-outang resembles the apes, and differs from man: *Longus colli, pectoralis, latissimus dorsi, gluteus maximus et medius, psoas magnus et parvus, iliacus internus, et gastrocnemius internus*. 25. He differs from man in the figure of the *deltoides, pronator radii teres, et extensor pollicis brevis*. Anatomy of the orang-outang by Tyson.

\* *Simiae* dividuntur in cauda carentes, quae simiae simpliciter dicuntur; et caudatas, quae cercopithecii appellantur; quae prioris generis sunt Anglice *Apes* dicuntur; quae posterioris *Monkeys*; *Raii synopsis quad. p. 149.*

rected forward. Hence this character is of no great moment in the comparison of the orang-outang with man.

2. In the passage quoted from Tyfon, I took no notice of the four first differences; because they are either too slight, or ill founded. The first is the difference of stature, which is an uncertain and gratuitous character, especially as the author acknowledges that his animal was very young. The second, third, and fourth are derived from the form of the nose, the quantity of hair, and other minute relations. I retrenched several other differences; for example, the twenty-first, drawn from the number of teeth. It is certain that both the human species and this animal have an equal number of teeth. If the latter had only twenty-eight, as our author remarks, it was owing to his youth; and, it is well known, that man, when young, has not a greater number.

3. The seventh difference is also very equivocal: The testicles of children are situated very high; and this animal, being young, ought not to have had them pendulous.

4. The forty-eighth mark of resemblance, and the twenty-first, twenty-second, twenty-third, twenty-fourth, and twenty-fifth marks of difference, are derived from the figure or presence of certain muscles, which, as they vary in most individuals of the human species, ought not to be regarded as essential characters.

5. All

5. All the resemblances and differences drawn from parts too minute, as the processes of the vertebrae, or derived from the position and magnitude of certain parts, should only be considered as accessory characters; so that the whole detail of Tyfon's table may be reduced to the resemblances and differences we have pointed out.

6. I shall mention some characters of a more general nature, some of which have been omitted by Tyfon, and others imperfectly related.

1. Of all the apes, baboons, and monkeys, the orang-outang alone wants those pouches within the cheeks, into which they put their food, before they swallow it; for the inside of his mouth is the same as in man. 2. The gibbon, the Barbary ape, all the baboons, and all the monkeys, except the douc, have flat buttocks, with callosities on them. The orang-outang alone has plump buttocks without callosities. The douc likewise has no callosities; but his buttocks are flat and covered with hair; so that, in this respect, the douc forms the shade between the orang-outang and the monkeys. 3. The orang-outang alone has calfs of the legs and fleshy buttocks. This single character shows that he is best formed for walking erect; only his toes are very long, and his heel rests with more difficulty on the ground than that of man. He runs with more ease than he walks; and, to enable him to walk easily and long, he would  
require

require artificial heels higher than those of our shoes. 4. Though the orang-outang has thirteen ribs, and man but twelve, this difference does not make him approach nearer to the baboons or monkeys than it removes him from man; because the number of ribs varies in most of those species, some of them having twelve, others eleven, others ten, &c. Hence the only differences between the body of this animal and that of man are reduced to two, namely, the figure of the bones of the pelvis, and the conformation of the feet. These are the only parts worthy of consideration, by which the orang-outang has a greater resemblance to the other apes than he has to man.

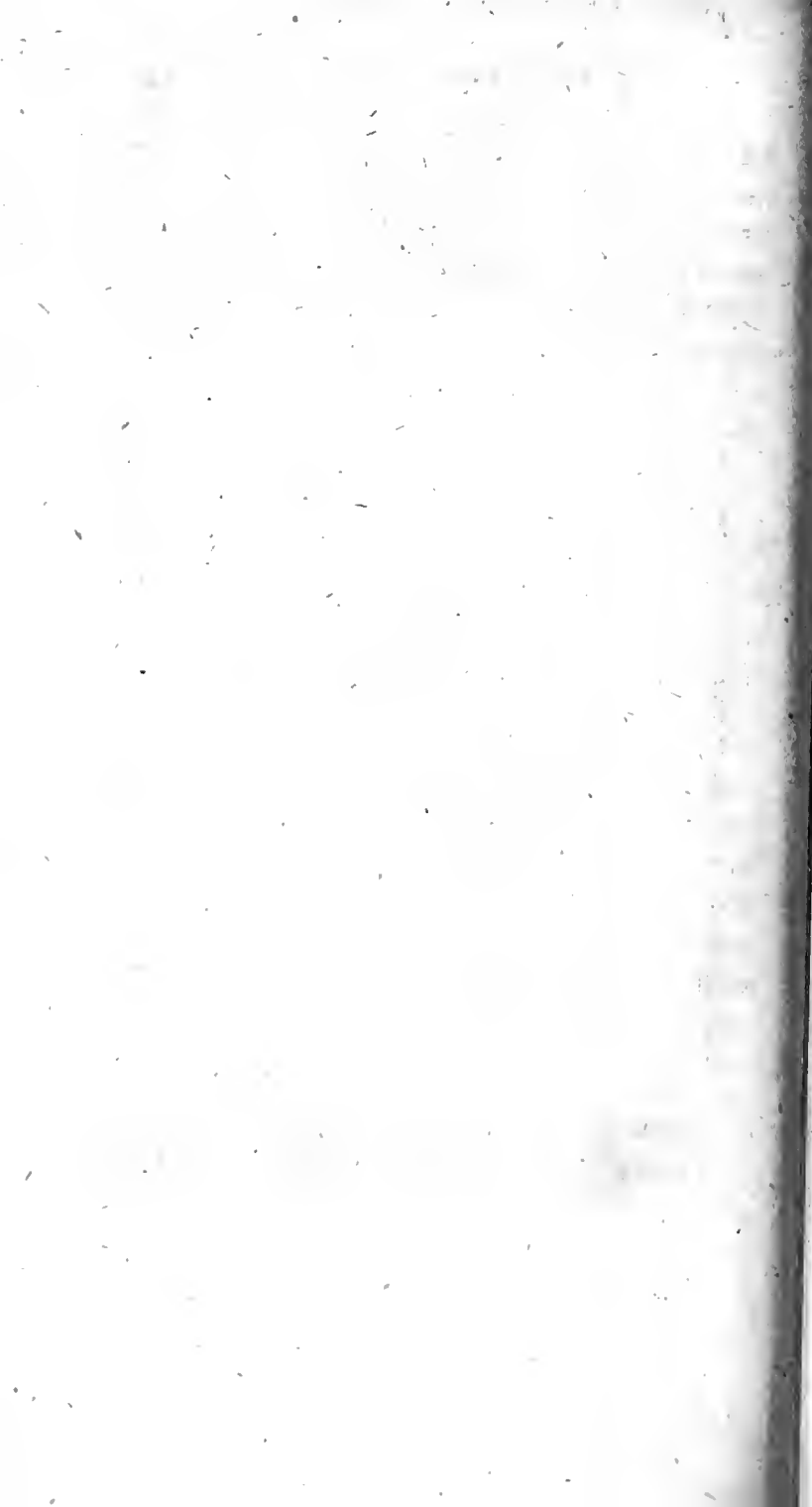
From this examination, which I have made with all the exactness I was capable of, a judgment may be formed concerning the orang-outang. If there were a scale by which we could descend from human nature to that of the brutes, and if the essence of this nature consisted entirely in the form of the body, and depended on its organization, the orang-outang would approach nearer to man than any other animal. Placed in the second rank of beings, he would make the other animals feel his superiority, and oblige them to obey him. If the principle of imitation, by which he seems to mimic human actions, were a result of thought, this ape would be still farther removed from the brutes, and have a greater affinity to man. But, as we formerly

Plate CCLVIII.



*A. Belle Sculp.*

JOCKO.





merly remarked, the interval which separates them is immense ; and the resemblance in figure and organization, and the movements of imitation which seem to result from these similarities, neither make him approach the nature of man, nor elevate him above that of the brutes.

*Distinctive Characters of this Species.*

The orang-outang has no pouches within his cheeks, no tail, and no callosities on his buttocks ; which last are plump and fleshy. All his teeth are similar to those of man. His face is flat, naked, and tawny. His ears, hands, feet, breast, and belly, are likewise naked. The hair of his head descends on both temples in the form of tresses. He has hair on his back and loins, but in small quantities. He is five or six feet high, and walks always erect on his two feet. We have not been able to ascertain whether the females, like women, are subject to periodical courses ; but analogy renders this matter almost unquestionable.

## THE PIGMY\*.

**A**RISTOTLE remarks, ' that there are  
 ' animals whose nature is ambiguous, and  
 ' are partly allied to man, and partly to qua-  
 ' drupeds ; such as the *pigmies*, the *kebes*, and  
 ' the *cynocephali*. The *kebe* is a pigmy with a  
 ' tail ; and the *cynocephalus* is perfectly similar  
 ' to the pigmy, except that it is larger and  
 ' stronger, and has a longer muzzle, approach-  
 ' ing nearly to that of the bull-dog, from which  
 ' circumstance its name has been derived. Its  
 ' manners are likewise more ferocious, and its  
 ' teeth

\* Ape with a flattish face ; ears like those of a man ; body of the size of a cat ; colour above an olive brown, beneath yellowish ; nails flat ; buttocks naked ; sits upright ; *Pennant's synopsis of quad.* p. 98.

*Πιθηκος* in Greek ; *Simia* in Latin ; *Le Pitheque* in French ; *Chinchin* in Tartary ; and *Sinjün* in China.

*Pithecus* ; *Arist. Hist. Anim. lib. 2. cap. 8.*

*Simia* ; *Gesner, Quad. p. 847. Raii Synopsis. Quad. p. 149. Johnson de quad. tab. 59.*

Ape, 2d spec. *Bosman's Guiney, p. 242.*

*Le Singe. Simia unguibus omnibus planis et rotundatis ; Brisson. Quad. p. 133.*

*Figura prima est earum simiarum quae caudas non habent : Hae caeteris facilius et citius mansuefiunt ; caeterisque solertiori ingenio praestant, hilarioresque et versutiores existunt ; Prosp. Alp. Hist. Egypt. lib. 4. tab. 20. fig. 1.*

*Simia sylvanus, ecaudata, natibus calvis, capite subrotundo ; Linn. Syst. Nat. p. 34.*

‘teeth are stronger than those of the pigmy, and have a greater resemblance to those of the dog.’ From this passage, it is apparent, that neither the pigmy nor the *cynocephalus* mentioned by Aristotle have a tail; for he says, that the pigmies with tails are called *kebes*, and that the *cynocephalus* resembles the pigmy in every article, except the muzzle and teeth. Hence Aristotle takes notice of two apes without tails, the pigmy and *cynocephalus*, and other apes with tails, to which he gives the denomination of *kebes*. Now, to compare our own knowledge with that of Aristotle, we shall remark, that we have seen three species of apes without tails, the orang-outang, the gibbon, or long armed ape, and the magot, or Barbary-ape, and that the pigmy is none of these three species; for the orang-outang and gibbon could not be known to Aristotle, since these animals are only found in the southern parts of Africa and India, which were not discovered in his time; besides, they have characters very different from those he ascribes to the pigmy. But the third species, which we call the *magot*, or Barbary ape, is the *cynocephalus* of Aristotle; for it has no tail; its muzzle resembles that of a bull-dog; and its canine teeth are long and thick. Besides, this animal is common in Asia Minor, and other eastern provinces which were known to the Greeks. The pigmy belongs to the same country; but we know it only from the relations of travellers.

lers. But, though we have never been able to procure this ape, its existence is equally real with that of the *cynocephalus*. Gefner and Johnston have given figures of the pigmy. M. Brisson mentions his having seen it, and he distinguishes it from the *cynocephalus* or Barbary ape, which he likewise saw. He confirms Aristotle's remark, that these two animals resemble each other in every thing, except that the *cynoccephalus* has a longer muzzle than the pigmy\*.

We remarked, that the orang-outang, the pigmy, the gibbon, and the Barbary ape, are the only animals to which the generic name *ape* ought to be applied; because they alone want the tail, and walk spontaneously, and oftener on two feet than on four feet. The orang-outang and the gibbon are very different from the pigmy and Barbary ape. But, as the two latter have a perfect resemblance, except in the length of the muzzle and the largeness of the canine teeth, the one has frequently been mistaken for the other. They have always been mentioned under the

\* The first race of apes, which have no tail, and a short muzzle: 1. The ape. I saw several apes which differed only in magnitude: Their face, ears, and nails, were very similar to those of man. The hair which covered their bodies, except the buttocks, which are naked, is a mixture of green and yellow. The green predominates on the superior part of the body, and the yellow on the inferior. . . . The second race of apes, which have no tail, and a long muzzle: 1. The *cynocephalus* differs from the ape only in having a long muzzle, like that of a dog. I saw several of them which had no difference but in size; *Brisson. regn. anim. p. 189. 191.*

the common appellation of *ape*, even in languages which have one name for apes without tails, and another for those which have tails. In German, both the pigmy and Barbary ape are called *aff*, and *ape* in English. It is only in the Greek language that each of these animals has a proper name. *Cynocephalus* is rather an adjective than a proper substantive; and for that reason we have not adopted it.

From the testimony of the ancients, it appears, that the pigmy is more mild and docile than all the other apes with which they were acquainted, and that it was common in Asia, as well as in Lybia, and other provinces of Africa which were frequented by the Greek and Roman travellers. Hence I presume that the following passages of Leo Africanus and Marmol ought to be applied to the pigmy. They tell us, that the apes with long tails, which are shown in Mauritania, and which the Africans call *mones*, come from the Negro country; but that the apes without tails are natives, and very numerous in the mountains of Mauritania, Bugia, and Constantina: ‘They have,’ says Marmol, ‘the feet, the hands, and the countenance of a man, and are extremely malicious and full of spirit. They live upon herbs, corn, and all kinds of fruits. They go in troops into the gardens or fields; but, before they leave the thickets, one of them ascends an eminence, from which he views the country; and, when he sees no person, he gives

' gives the signal, by a cry for the rest to pro-  
 ' ceed, and removes not from his station as long  
 ' as they continue abroad. But, whenever he  
 ' perceives any person approaching, he screams  
 ' with a loud voice ; and, by leaping from tree  
 ' to tree, they all fly to the mountains. Their  
 ' flight is worthy of admiration ; for the females,  
 ' though they carry four or five young ones on  
 ' their backs, make great springs from branch to  
 ' branch. Though extremely cunning, vast  
 ' numbers of them are taken by different arts.  
 ' When wild, they bite desperately ; but by car-  
 ' resses they are easily tamed. They do much  
 ' mischief to the fruits and corn ; for they ga-  
 ' ther it together in heaps, cut it, and throw it  
 ' on the ground, whether it be ripe or not, and  
 ' destroy more than they eat or carry off. Those  
 ' who are tamed perform things which are al-  
 ' most incredible, and imitate every human ac-  
 ' tion\*.' Kolbe relates nearly the same facts  
 with regard to the apes of the Cape of Good  
 Hope. But, from his figure and description, it  
 is obvious, that these apes are baboons, and have  
 a short tail, a long muzzle, pointed nails, &c. ;  
 and that they are much larger and stronger than  
 the apes of Mauritania †. We may, therefore,  
 presume, that Kolbe has copied the passage from  
 Marmol, and attributed to the baboons of the  
 Cape

\* L'Afrique de Marmol, tom. 1. p. 57.

† See below, Art. *Baboon*.

Cape the manners and dispositions of Mauritanian pigmies.

The pigmy, the Barbary ape, and the baboon, were known to the ancients; these animals are found in Asia Minor, Arabia, Upper Egypt, and in all the northern parts of Africa. Hence this passage of Marmol may be applied to all the three. But it corresponds not with the baboon; for it mentions, that these apes have no tails. Neither is it the Barbary ape, but the pigmy, of which this author treats; for the Barbary ape is not easily tamed, and, instead of four or five, it generally produces only two young. But the pigmy, being smaller, should produce a greater number. Besides, it is milder and more docile than the Barbary ape, which is never perfectly tamed. For these reasons, I am convinced that it is not the Barbary ape, but the pigmy, to which the passage in the above author ought to be applied. The same remark is applicable to a passage of Rubruquis; when mentioning the apes of Cathay, he says, ‘ That, in every article, ‘ they are fashioned like man. . . . That they ‘ are more than a foot and a half high, and all ‘ covered with hair; that they live in caverns; ‘ that, in order to seize them, the natives put ‘ strong inebriating liquors in the caverns they ‘ frequent; . . . that they assemble together to ‘ drink these liquors, crying *chinchin*, from which ‘ they have obtained the name of *chinchin*; and ‘ that, after intoxicating themselves, they fall ‘ asleep,

‘ asleep, when they are easily taken by the hunters.’ These characters correspond with the pigmy, and by no means with the Barbary ape. The latter we have seen alive, and never heard it cry *chinchin*. Besides, it is much more than a foot and a half high, and has not so great a resemblance to man as the author alledges. We have the same reasons for applying to the pigmy the figure and remark of Prosper Alpinus. He tells us, that the small apes without tails, which he saw in Egypt, tame sooner and more easily than any other ; that they have likewise more sagacity and industry, and are gayer and more frolicsome. Now, the Barbary ape is thick, and of a considerable stature ; it is a dirty, ferocious, melancholy animal, and is never fully tamed. Hence the characters given by Prosper Alpinus to his ape without a tale, apply not to the Barbary ape, and can belong to no other animal than the pigmy.

*Distinctive Characters of this Species.*

The pigmy has no tail, and his canine teeth are not proportionally larger than those of man. He has a flat face ; his nails are likewise flat, and rounded like those of the human species. He walks on two feet, and is about a foot and a half in length. His disposition is mild, and he is easily tamed. The ancients alledge, that the female is subject to the menstrual discharge, and analogy permits us not to doubt the fact.

The



## The GIBBON, or Long-armed APE \*.

**T**HE Gibbon keeps himself always erect, even when he walks on four feet ; because his arms are as long as both his body and legs. We have seen him alive. He exceeded not three feet in height ; but he was young, and in captivity. Hence we may presume, that he had not acquired his full dimensions, and that, in a natural state, he might arrive at four feet. He has not the vestige of a tail. But he is distinguished

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\* Long-armed ape, with a flat swarthy face, surrounded with gray hairs ; hair on the body black and rough ; buttocks bare ; nails on the hands flat, on the feet long ; arms of a disproportioned length, reaching quite to the ground when the animal is erect, its natural posture ; of a hideous deformity ; *Pennant's synopsis of quadr. p. 100.*

*Gibbon* is the name under which M. Dupleix gave us this animal, which he brought from the East Indies. I first imagined this to be an Indian word. But I found, in a note upon Pliny by Dalecamp, that Strabo had denoted the *cephus* by the words *keipon*, from which *guibon* or *gibbon* had probably been derived. The following is the passage of Pliny, with Dalechamp's note ; ‘ *Pompeii Magni primum ludi ostenderunt ex Ethiopia quas vocant cephos* \*, *quarum pedes posteriores pedibus humanis et cruribus, priores manibus fuere similes : Hoc animal postea Roma non vidit.*’

\* *Cephos* ; Strabo, lib. 15. *κεῖπον* vocat, esseque tradit facie fatyro similem ; *Dal. Plin. Hist. Nat. lib. 8. cap. 19 Nota.* It appears that the *cebus* of the Greeks, and the *cephus* of Pliny, which ought to be pronounced *kebus* and *kephus*, may have originally come from *keph* or *kephin*, the Hebrew and Chaldean name of the ape.

guished from the other apes by the prodigious length of his arms: When standing erect on his hind feet, his hands touch the ground; and he can walk on his four feet without bending his body. Round the face there is a circle of white, which gives him a very extraordinary appearance. His eyes are large, but deep sunk. His ears are naked. His face is flat, of a tawny colour, and pretty similar to that of man. After the orang-outang and the pigmy, the gibbon would make the nearest approach to the human figure, if he was not deformed by the excessive length of his arms; for, in a state of nature, man would likewise have a strange aspect. The hair and the beard, if neglected, would form round his countenance a circle similar to that which surrounds the face of the gibbon.

This ape appeared to be of a tranquil disposition, and of gentle manners. His movements were neither too brisk nor precipitant. He received mildly what was given him to eat. He was fed with bread, fruits, almonds, &c. He was afraid of cold and moisture, and did not live long in a foreign climate. He is a native of the East Indies, and particularly of Coromandel, Malacca, and the Molucca islands\*. It appears

\* Father le Comte tells us, that he saw in the Molucca's a kind of ape, which walked naturally on two feet, used its hands like a man, and had a face like that of a Hottentot. But the whole body was covered with a kind of gray wool.

pears that he is likewise found in more northern provinces, and that we ought to refer to the gibbon the ape of the kingdom of Gannaura, on the frontier of China, to which some travellers have given the name of *sesé* †.

The gibbon varies in size and colour. There are two in the royal cabinet, of which the second, though an adult, is much smaller than the first, and is brown on all the parts where the other is black. But they so perfectly resemble each other in every other article, that they unquestionably belong to the same species.

H 2

*Distinctive*

It had an exact resemblance to an infant, and expressed its passions and appetites in the most perfect manner. He adds, that these apes are extremely gentle; that they show great attachment to the people with whom they are acquainted, and embrace them with transport; that one of them, which he saw, was, at least, four feet high, and was very dexterous and agile; *Mem. sur la China, par Louis le Comte, p. 510.*

† In the kingdom of Gannaura, on the frontier of China, there is a very rare animal called *sesé*. It is nearly of the human figure. Its arms are very long; the body is black, and covered with hair; and it moves lightly and very quick; *Recueil des voyages, &c. tom. 3. p. 168. Nota. 1.* This character of very long arms belongs only to the gibbon; and, consequently, indicates that the *sesé* is the same animal. 2. We may presume, that the word *sesé* comes from *jeses* or *seses*, the name of the baboon in the provinces of Africa which border upon Arabia, and that it has been transferred from the baboon to the gibbon; for the arms of the baboon are not longer than those of the other apes.

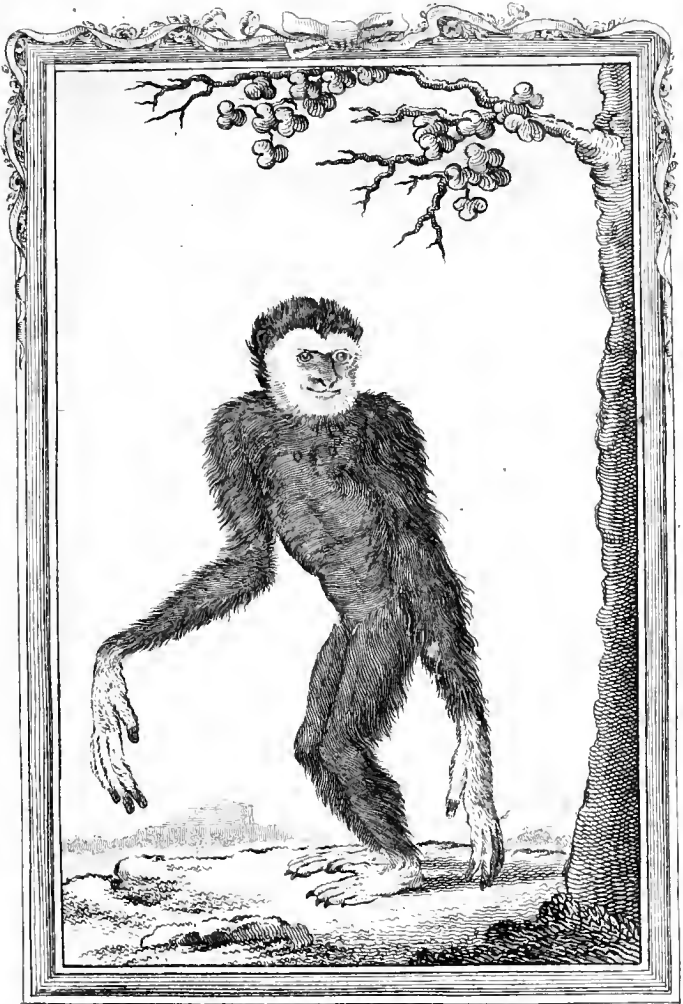
*Distinctive Characters of this Species.*

The gibbon has no tail. There are slight callosities on his buttocks. His face is flat, brown, and surrounded with a circle of gray hairs. His canine teeth are proportionally larger than those of man. The ears are naked, black, and round. The arms are enormously long. He walks on his two hind feet, and is about a foot and a half or three feet high. The female, like women, is subject to a periodical evacuation.



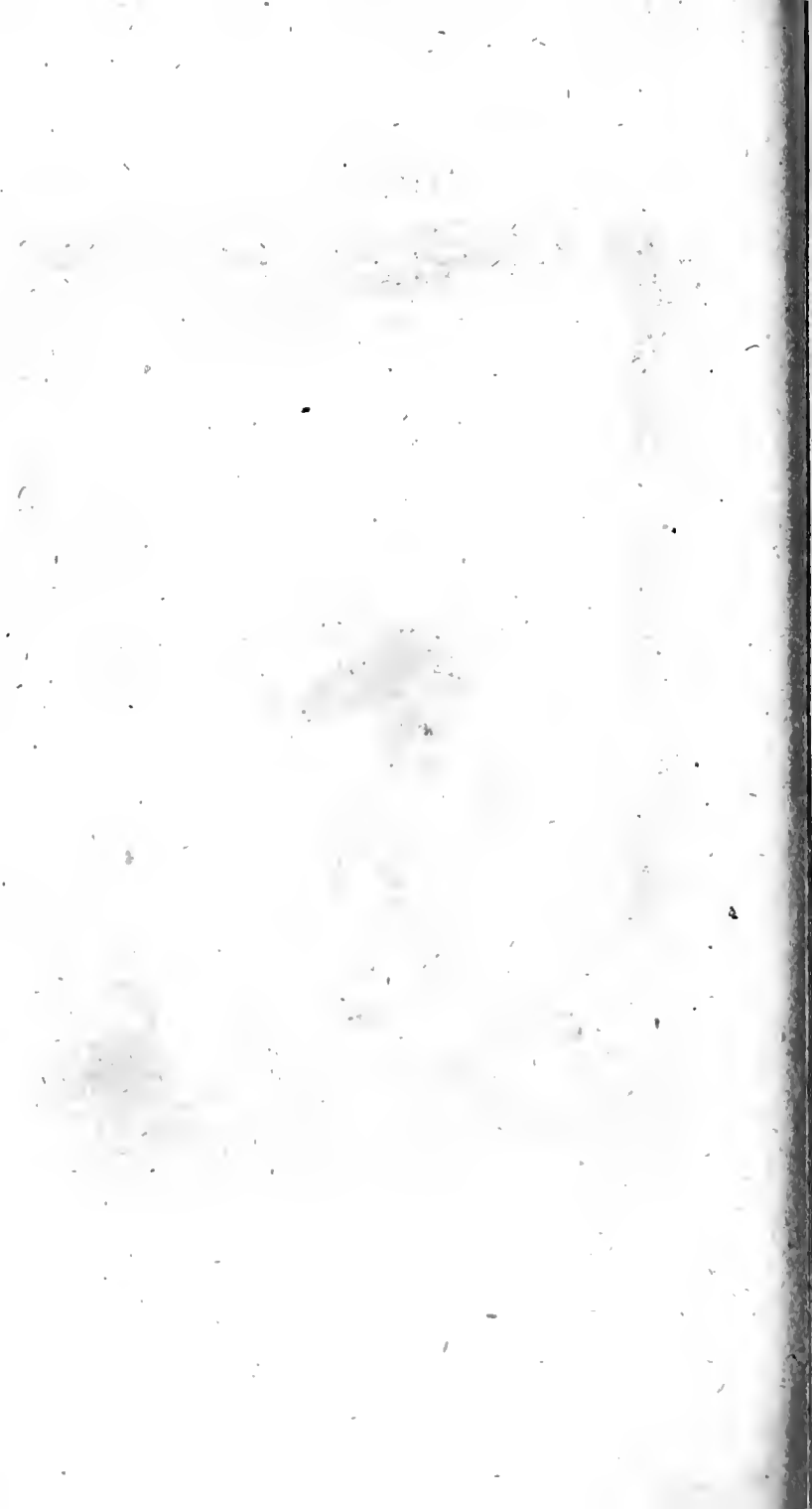
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Plate CCLIX.



*A. Bell sculp.*

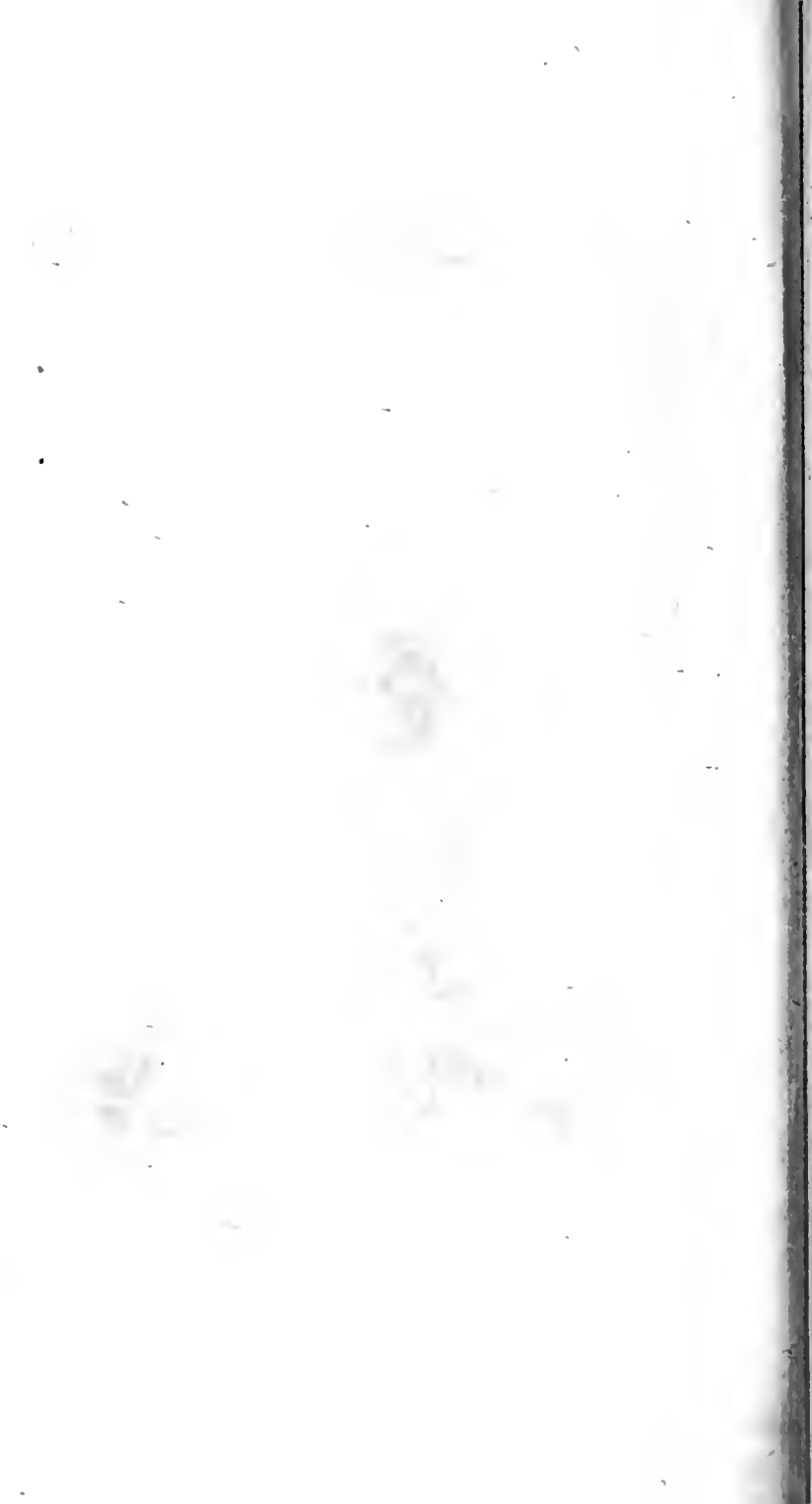
GREAT GIBBON.





*A. Bell sculp.*

SMALL GIBBON.





## The MAGOT, or BARBARY APE\*.

**O**F all the apes without tails †, the magot agrees best with the temperature of our climate. We kept one several years. In summer, he delighted to be in the open air; and, in winter, he might be kept in a room without fire. Though by no means delicate, he was always melancholy, and sometimes dirty. He used the same grimaces to mark his anger, or to express his appetite. His movements were brisk; his manners gross, and his aspect more ugly than

H 3

ridiculous;

\* Barbary ape, with a long face, not unlike that of a dog; canine teeth long and strong; ears like the human; nails flat; buttocks bare; colour of the upper part of the body a dirty greenish brown; belly of a dull pale yellow; grows to above the length of four feet; *Pennant's synopsis of quad.* p. 100.

*Magot*, the old French name of this ape, which we have adopted. *Momenet*, according to Johnston. It is likewise called *Tartarin*, because it is very common in South Tartary.

*Cynophalus*; *Arist. Hist. anim. lib. 2. cap. 8.* *Plinii lib. 8. cap. 54.* *Gesner, quad. p. 859.* *Prosper Alpin. Egypt. vol. 2. p. 241. tab. 16.*

*Simia cynocephala*. . . . Le singe cynocephale; *Briffon. quad.*

*Simia inuus, ccaudata, natibus calvis, capite oblongo*; *Linnaeus. syst. nat. p. 35.*

† It is certain that this ape has no tail, though there is a slight appearance of one, formed by a small appendix of skin about half an inch long, and situated above the anus. But this appendix has no vertebrae, and is only a portion of skin, which adheres not more to the coccyx than to the rest of the skin.

ridiculous. When agitated with passion, he exhibited and ground his teeth. He filled the pouches of his cheeks with the food which was given him, and generally eat every thing, except raw flesh, cheese, and whatever had undergone a kind of fermentation. When about to sleep, he loved to perch upon an iron or wooden bar. He was always chained; because, though he had been long in a domestic state, he was not civilized, and had no attachment to his masters. He seems to have been ill educated; for I have seen others of the same species more intelligent, more obedient, more gay, and so docile as to learn to dance, to make gesticulations in cadence, and to allow themselves peaceably to be clothed.

This ape, when erect upon his two hind legs, is generally two feet and a half, or three feet high; the female is smaller than the male. He walks more-willingly on four than on two feet. When resting, he commonly supports his body on two prominent callosities, which are situated where the buttocks ought to be: The anus is placed higher. Hence his body is more inclined than that of a man, when sitting. He differs from the pigmy or ape properly so called: 1. Because his muzzle is thick and long, as in the dog; but the face of the pigmy is flat; 2. Because he has very long canine teeth; 3. Because his nails and fingers are neither so flat nor so round; and, 4. Because he is larger, more squat,

sqnat, and of a more ferocious and untractable disposition.

There are some varieties in this species. We have seen magots of different sizes, and with hair more or less deeply coloured, and more or less bushy: It even appears, that the five animals described and drawn by Prosper Alpinus, under the denomination of *cynocephali* \*, are all magots, which differ only in magnitude, and in some other characters too slight to constitute distinct species. It likewise appears that the species is pretty generally diffused over all the warm climates of the Old Continent, and that they are found in Tartary, Arabia, Æthiopia, Malabar, Barbary, Mauritania, and as far as the Cape of Good Hope †.

*Distinctive*

\* Prosper: Alpin. Hist. Nat. Ægypt. lib. 4. tab. 15. fig. 1. et tab. 16. 17. 18. 19.

† The third species of Malabarian ape is ash-coloured, and has no tail, or a very short one. It is familiar, and easily apprehends what it is taught.—I received one in a present, and I once thought proper to beat it; but its cries brought about me such a number of its neighbours in a wild state, that, to prevent accidents, I restored it to liberty; *Voyage du P. Vincent Marie*, p. 405.

‡ It is probably this species of ape which Robert Lade mentions in the following terms: ‘We traversed a large mountain in the neighbourhood of the Cape of Good Hope, and amused ourselves with hunting large apes, which are very numerous in that place.—I can neither describe all the arts practised by these animals, nor the nimbleness and impudence with which they returned, after being pursued by us. Sometimes they allowed us to approach so near them, that I was almost certain of seizing them. But, when I made  
‘ the

*Distinctive Characters of this Species.*

The magot has no tail, though there is a small portion of skin which has the appearance of one. He has cheek-pouches, large prominent callosities on his buttocks, canine teeth, proportionally longer than those of man, and the under part of the face turned up, like the muzzle of a bulldog. He has down on his face; the hair on his body is of a greenish brown colour, and that on his belly is a whitish yellow. He walks on the two hind feet, but oftener on four. He is three or three and a half feet high; and some of this species appear to be still larger. The females are subject to a periodical discharge.

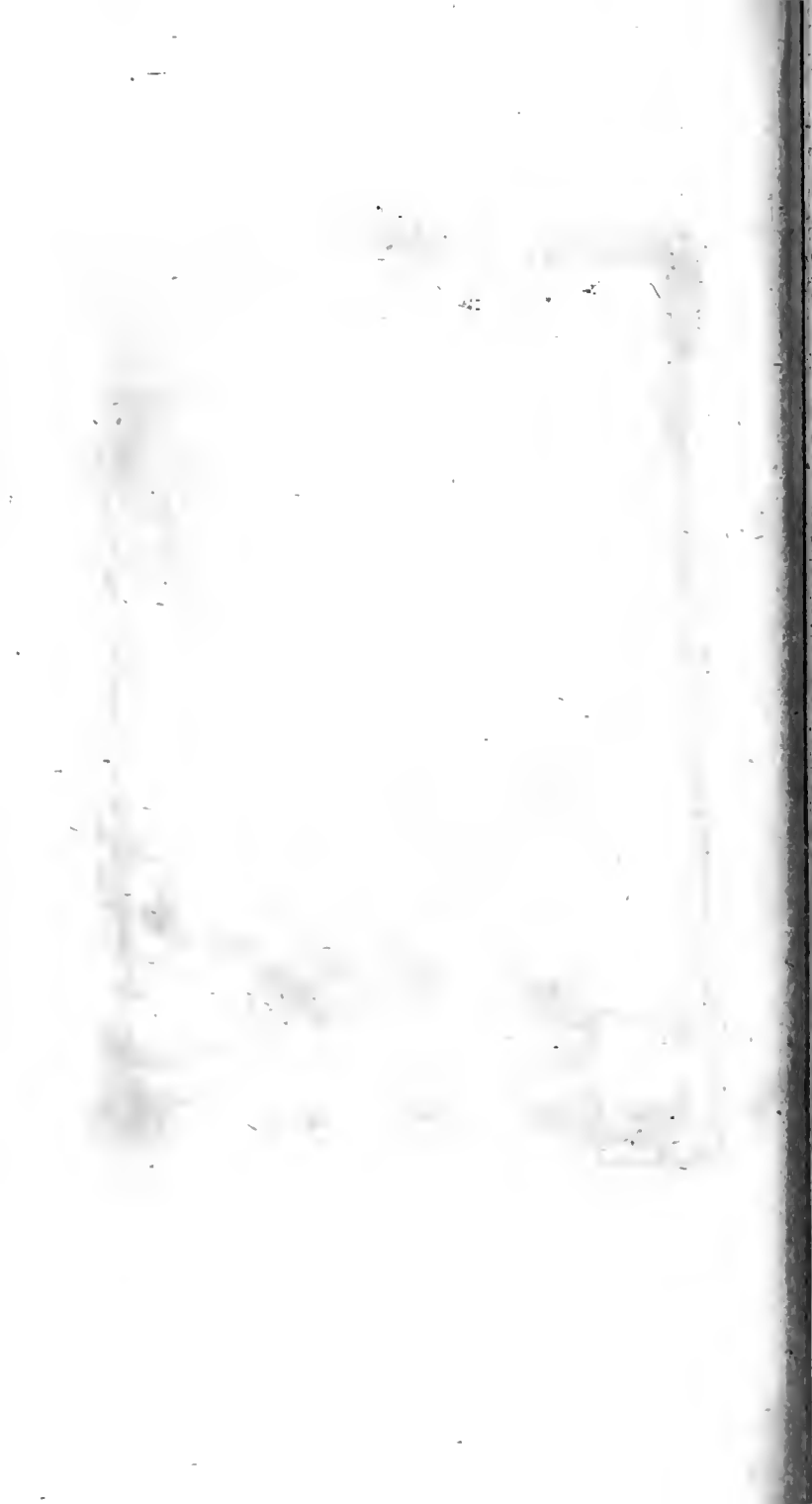
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the attempt, they sprung, at a single leap, ten paces from me, and mounted trees with equal agility, from which they looked at us with great indifference, and seemed to derive pleasure from our astonishment. Some of them were so large, that, if our interpreter had not assured us that they were neither ferocious nor dangerous, our number would not have appeared to be sufficient to protect us from their attacks. As it could serve no purpose to kill them, we did not use our guns. But the Captain happened to aim at a very large one which sat on the top of a tree, after having fatigued us a long time in pursuing him: This kind of menace, however, of which the animal, perhaps, recollected his having sometimes seen the consequences, terrified him to such a degree, that he fell down motionless at our feet, and we had no difficulty in seizing him. But, whenever he recovered from his stupor, it required all our dexterity and efforts to keep him. We tied his paws together. But he bit so furiously, that we were under the necessity of covering his head with our handkerchiefs; *Voyages by Robert Lae.*



*E. Bollen sculp.*

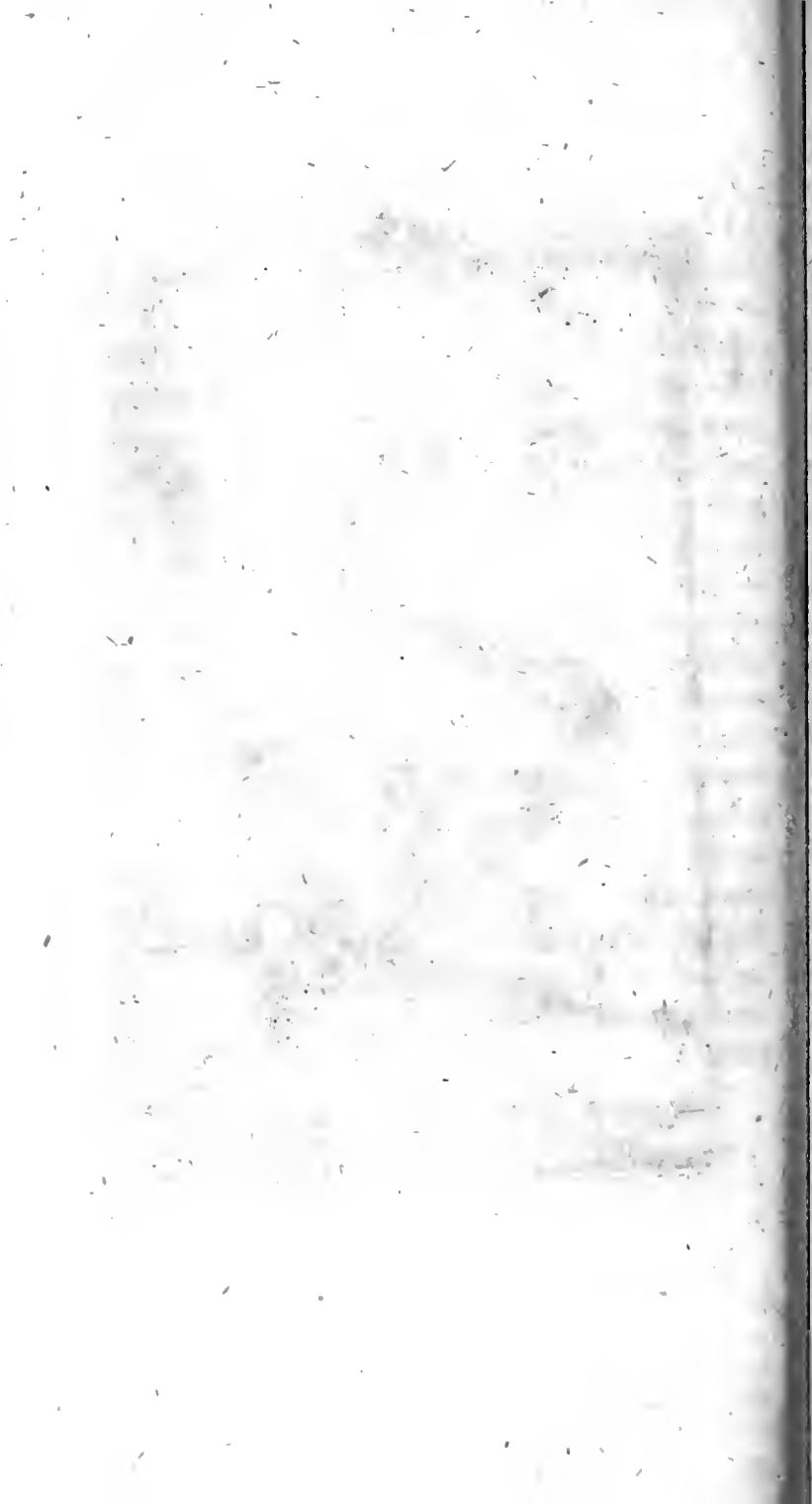
MAGOT.





*A. Bell, sculp.*

MAGOT.





## The BABOON, properly so called\*.

**I**N man, the physiognomy is deceitful, and the figure of his body gives no indication of the qualities of his mind. But, in the brute creation, we may judge of the disposition by the aspect; for every internal quality appears externally. For example, in looking at the apes and baboons, it is easy to perceive, that the latter ought to be the most savage and mischievous. Their manners differ as much as their figures. The orang-outang has the greatest resemblance to man; and he is the most grave, docile, and intelligent of the whole race. The Barbary ape, which begins to recede from the human figure, and approaches to that of the brutes by his muzzle and canine teeth, is brisk, disobedient, and nasty. The baboons, who resemble man in the hands only, and who have a tail, sharp nails, a large muzzle, &c. have the air of ferocious beasts, which they really are. The baboon, of which a figure is here

\* In Latin *Papio*; in English, *Baboon*; in German, *Pavyon*; at the Cape of Good Hope, *Choac-kama*; in French, *le Papion*, or *Babouin*.

*Papio*; *Gesner. Icor. quad. p. 76. Brisson. Regn. anim. p. 192.*

*Simia sphinx, semicaudata, ore vibrillato, unguibus acuminatis, natibus calvis*; *Linn. Syst. Nat. p. 35. Nota.* Linnaeus erred in making whiskers a distinctive character of this animal; for the real baboon has no whiskers. See our figure, which was drawn from the life.

here given, I saw alive. He was not perfectly hideous ; and yet he excited a degree of horror. Perpetually grinding his teeth, fretting and chafing with rage, his owner was obliged to keep him confined in an iron cage, the bars of which he moved so powerfully with his hands, that he inspired the spectators with terror. He is a squat animal, whose compact body and nervous members indicate strength and agility. He is covered with long close hair, which gives him the appearance of being larger than he is in reality. His strength, however, is so great, that he would easily overcome one or several men, if not provided with arms \*. Besides, he is continually agitated by that passion which renders the gentlest animals ferocious. He is insolently salacious, affects to show himself in this situation, and seems to gratify his desires, *per manum suam*, before the whole world. This detestable action recalls the idea of vice, and renders disgusting the aspect of an animal, which Nature seems to have particularly devoted to such an uncommon species of impudence ; for, in all other

\* It is to this species that the animal called *tré, tré, tré, tré*, at Madagascar, ought to be referred. It is as large, says Flacourt, as a calf of two years old. It has a round head, and the face of a man. The fore and hind feet are like those of the ape. The hair is crisped, the tail short, and the ears resemble those of man. It is similar to the *tanach* described by Ambrose Pary. It is a solitary animal, and much dreaded by the natives ; *Voyage à Madagascar*, p. 151.

ther animals, and even in man, she has covered these parts with a veil. In the baboon, on the contrary, they are perpetually naked, and the more conspicuous, because the rest of the body is covered with long hair. The buttocks are likewise naked, and of a blood red colour; the testicles are pendulous; the anus is uncovered, and the tail always elevated. He seems to be proud of all those nudities; for he presents his hind parts more frequently than his front, especially when he sees women, before whom he displays an effrontery so matchless, that it can originate from nothing but the most inordinate desire\*. The magot, and some others, have the same inclinations; but, as they are smaller and not so petulant, they are taught modesty by the whip. The baboon, however, is perfectly incorrigible, and nothing can tame him.

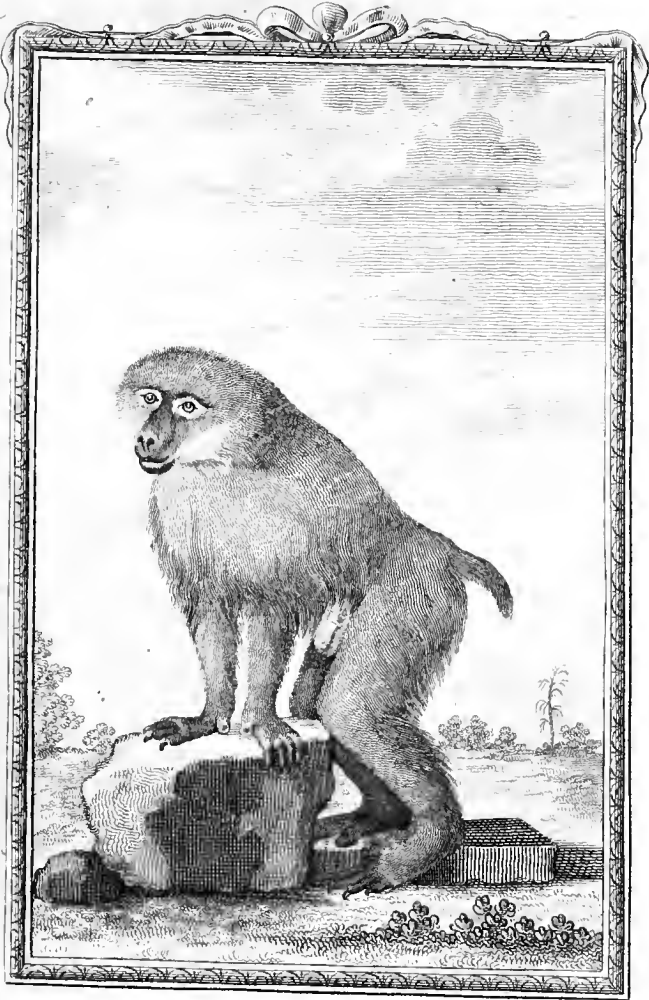
Notwithstanding the violence of their passion,  
these

\* Papio, animal ad libidinem pronum, cum mulieres videt alacritatem suam ostendit.—Papio quem vidi vivum, ad nutum haud fecus, atque caput reliqua animalia, anum vertebat frequentius populo ostentans; *Gesner. Icon. quad. p. 77.*—In the Philippine islands, the baboons are so salacious, that the women dare not go far from their own houses; *Voyage de Gemelli Carreri, tom. 5. p. 209.*—The baboons have no hair on their buttocks, which are so full of cicatrices and scratches, that they seem to be even deprived of skin. These animals are inexpressibly lascivious; *Descript. du Cap de Bonne-esperance, par Kolbe, tom. 3. p. 59.*—‘Papio, animal libidinosum mulieribus facile vim inferens, robustum et ferox;’ *Linn. syst. nat. p. 35.*

these animals produce not in temperate climates. The female generally brings forth but one young at a time, which she carries between her arms, in a manner fixed to her pap. Like women, she is subject to a periodical evacuation, which is common to her with the other female apes who have naked buttocks. These baboons, though mischievous and fierce, are not carnivorous. They live chiefly on fruits, roots, and feeds\*. They assemble in troops for the purpose of robbing gardens: They throw the fruit from hand to hand, and over the walls; and they make great havock in all the cultivated lands.

*Distinctive*

\* The baboons are passionately fond of raisins, apples, and, in general, of all fruits which grow in gardens. . . . Their teeth and paws render them formidable to dogs, who overcome them with difficulty, unless when excess of eating has made them heavy and inactive. — I remarked that they neither eat fish nor flesh, except when boiled or roasted, and then they devour both with avidity. — In their expeditions to rob orchards, gardens, or vineyards, they generally go in troops. Some of them enter the inclosure, while others remain on the wall as sentinels, to give notice of any approaching danger. The rest of the troop are stationed without the garden, at convenient distances from each other, and thus form a line which extends from the place of pillage to that of their rendezvous. Matters being disposed in this manner, the baboons begin the operation; and throw to those on the wall, melons, gourds, apples, pears, &c. Those on the walls throw these fruits to their neighbours below; and thus the spoils are handed along the whole line, which generally terminates on some mountain. They are so dexterous, and quick-sighted, that they seldom allow the fruit to fall in throwing it from one to another. All this is performed with profound silence and great dispatch. When the sentinels perceive any person, they cry; and



*A. Bell's sculp.*

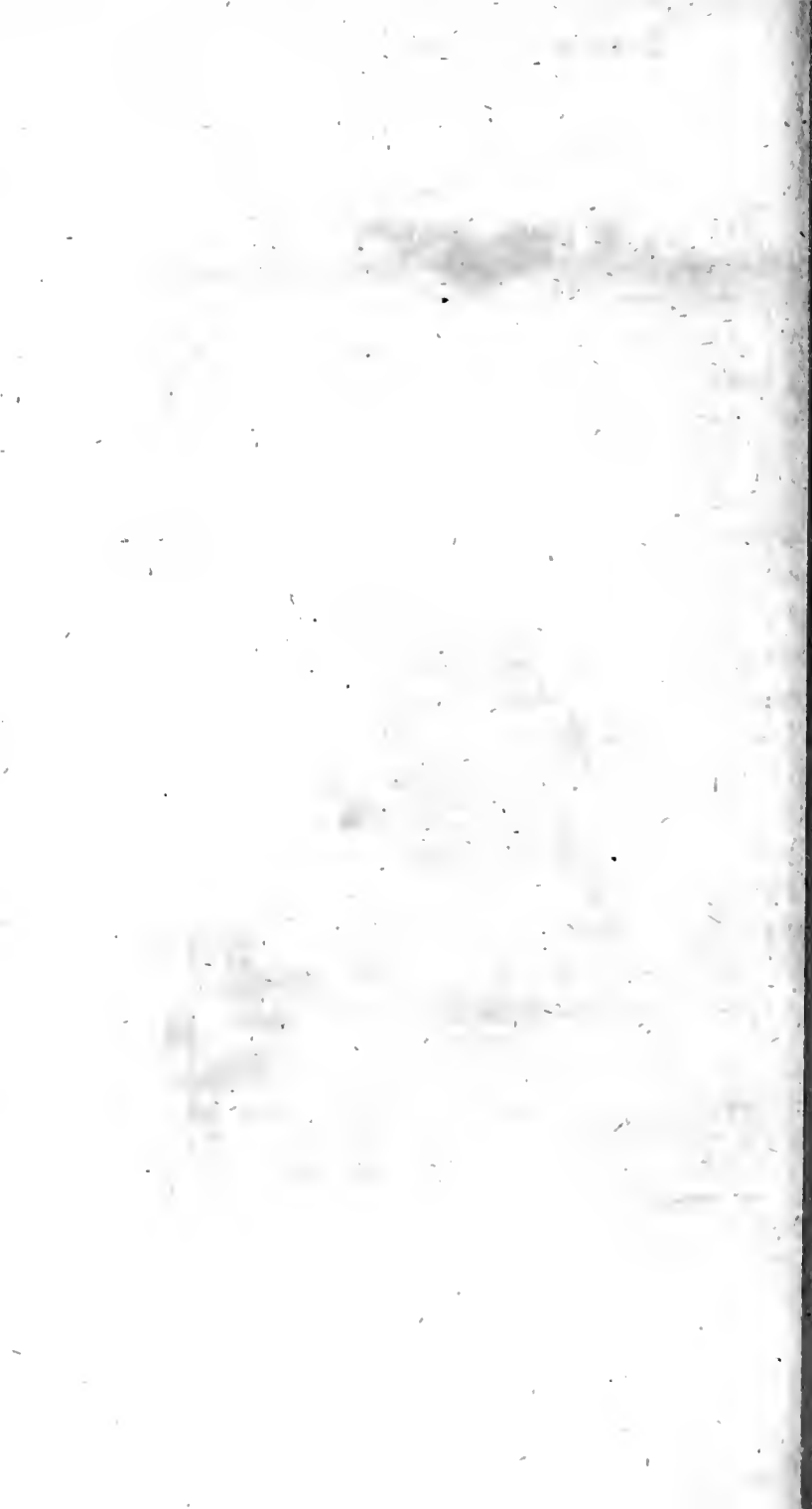
LARGE BABOON.





*A. Bell Sculp!*

SMALL BABOON.





*Distinctive Characters of this Species.*

The baboon has cheek-pouches and large callosities on his buttocks, which are naked, and of a blood colour. His tail is arched, and about seven or eight inches long. The canine teeth are proportionally much longer and larger than those of man. The muzzle is very thick and long; the ears are naked; the body is massy and contracted; the members are thick and short; the organs of generation are naked and flesh-coloured. The hair is long, bushy, of a reddish brown, and pretty uniform over the whole body. He walks oftener on four than on two feet. When erect, he is three or four feet high. In this species, there seem to be races still larger, and others much smaller. We have given figures both of the large and small kinds, in which we can perceive no other difference than that of magnitude. This difference, however, proceeds not from age; for the small baboon appeared to be an adult as well as the large. The females are subject to the menstrual discharge\*.

and, at this signal, the whole troop fly off with astonishing rapidity; *Descript. de Cap de Bonne-esperance, par Kolbe, tom. 3. p. 57.*

\* In August 1779, a male baboon, remarkable for its magnitude, strength, and beautiful colours, was exhibited at Edinburgh. It was generally thought to be a variety of the mandrill described by Gesner, Buffon, Ray, Linnaeus, and Brisson. But, as it differed from the mandrill of these authors in

a number of characters, the Translator caused a drawing of it to be made [See the plate]. The mandrill is said not to exceed two feet in length. But this baboon, when erect, was near five feet high. The mandrill is represented as a good-natured, though not a sportive animal. This baboon, on the contrary, was excessively fierce, presented uniformly to the spectators the most threatening aspect, and attempted to seize every person who came within reach of his chain. On such occasions, he made a deep grunting noise, and tossed up his head almost perpetually. The baboon described by Buffon 'presented his hind parts more frequently than his front, especially when he saw women.' But this baboon uniformly presented his face, and allowed no person to approach him behind. The Count de Buffon remarks, that the mandrill is an animal of the most disgusting deformity, and that he perpetually licks a spot which runs from his nose. But the baboon under consideration was an animal of great beauty, and had no visible distillation from his nostrils.

Since writing the above, Mr Pennant obligingly communicated to the Translator the proof sheets of a new and elegant edition of his excellent Synopsis of quadrupeds, in which is contained the following accurate description of this animal, under the appellation of the *Great Baboon*.

### G R E A T   B A B O O N .

Papio; *Gesner. quad. p. 560.* Simia Sphynx; *Linn. syst. nat. p. 35.* Le Choras. Simia mormon; *Alstroemur Schreber. p. 92. tab. 8.* Mus. Lev.

' Baboon with hazel irides; ears small and naked; face canine, and very thick; middle of the face and forehead naked, and of a bright vermilion colour; tip of the nose of the same; it ended truncated like that of a hog: Sides of the nose broadly ribbed, and of a fine violet blue; the opening of the mouth small; cheeks, throat, and goat-like beard, yellow: Hair on the forehead is very long, turns back, is black, and forms a kind of pointed crest. Head, arms, and legs, covered with short hair, yellow and black intermixed; the breast with long, whitish, yellow hairs; the shoulders & with long brown hair.

' Nails

‘ Nails flat; feet and hands black: Tail four inches long, and very hairy: Buttocks bare, red, and filthy; but the space about them is of a most elegant purple colour, which reaches to the inside of the upper part of the thighs.

‘ This was described from a stuffed specimen in Sir Ashton Lever’s museum. In October 1779, a live animal of this species was shown at Chester, which differed a little in colour from the above, being in general much darker. Eyes much sunk in the head, and small. On the internal side of each ear was a white line, pointing upwards. The hair on the forehead turned up, like a toupée. Feet black; in other respects resembled the former.

‘ In this I had an opportunity of examining the teeth. The cutting teeth were like those of the rest of the genus; but, in the upper and lower jaw, were two canine, or rather tusks, near three inches long, and exceedingly sharp and pointed.

‘ This animal was five feet high, of a most tremendous strength in all its parts; was exceedingly fierce, libidinous, and strong.

‘ Mr Schreber says, that this species lives on succulent fruits, and on nuts; is very fond of eggs, and will put eight at once into its pouches, and, taking them out one by one, break them at the end, and swallow the yolk and white: Rejects all flesh-meat, unless it be dressed: Would drink quantities of wine or brandy: Was less agile than other baboons: Very cleanly; for it would immediately fling its excrements out of its hut.

‘ That which was shown at Chester was particularly fond of cheese. Its voice was a kind of roar, not unlike that of a lion, but low and somewhat inward. It went upon all fours, and never stood on its hind legs, unless forced by the keeper; but would frequently sit on its rump in a crouching manner, and drop its arms before the belly.

‘ Inhabits the hotter parts of Africa;’ *Pennant’s Sympf. of quad. Edit. 2. in 4<sup>to</sup>, p. 173.*

To this description very little can be added. In the individual shown at Edinburgh, which was probably the same that Mr Pennant afterwards saw at Chester, the colours of the face were distinct and unmixed. The ribbed cheeks were of a sky-blue colour. A vermilion line began a little above the eyes, and running down between them, and on each side of the

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the nose, spread over the snout. The inside of the ears was blue, which, softening from purple, terminated in vermilion. The beard, at the roots, was of the same dark brown colour with that on the upper part of the body; but it soon changed into a deep orange, and ended in yellow. The hairs on the belly were of an ash-colour, and speckled like the sides of a partridge. The rump was of a vermilion colour; and the beautiful colours on the hips were only gradations from red to blue. If it had any callosities on the buttocks, they were not apparent. The penis was nearly of the same red colour with the rump; that of the testicles was more fiery, and softened into a light blue, which likewise spread over the inside of the thighs.—It was very fond of the ears of wheat, the grains of which it dexterously picked out, one by one, with its teeth.

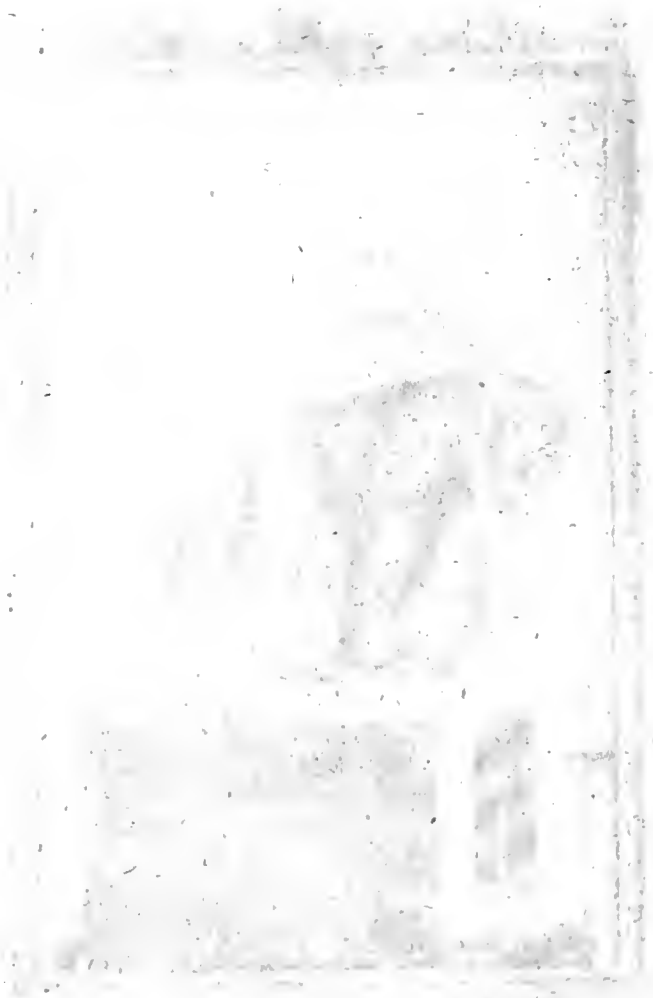


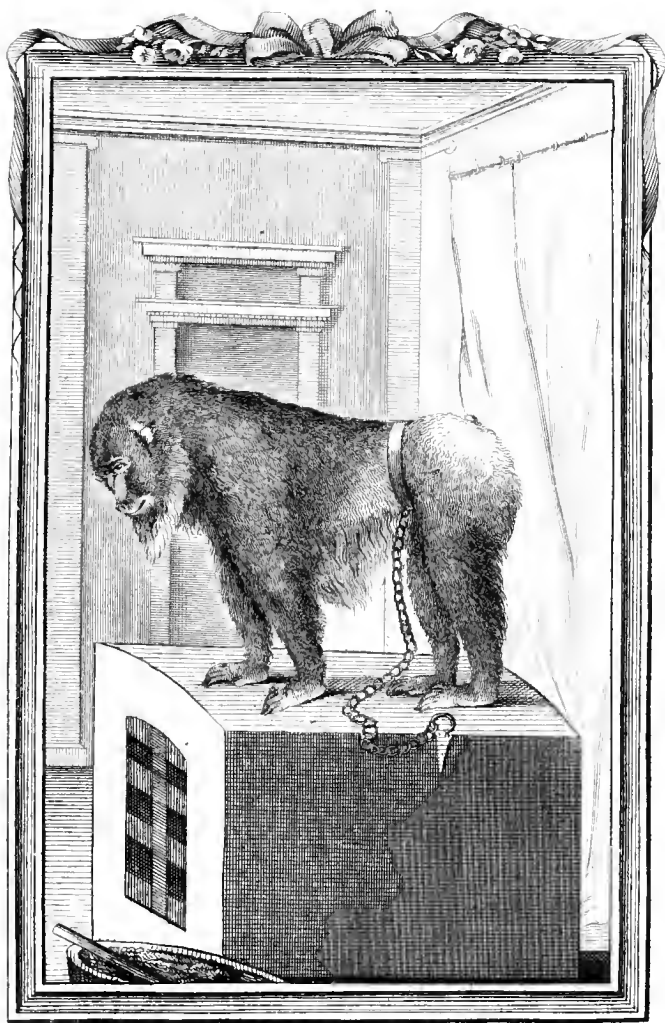
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*Ad Bell sculp.*

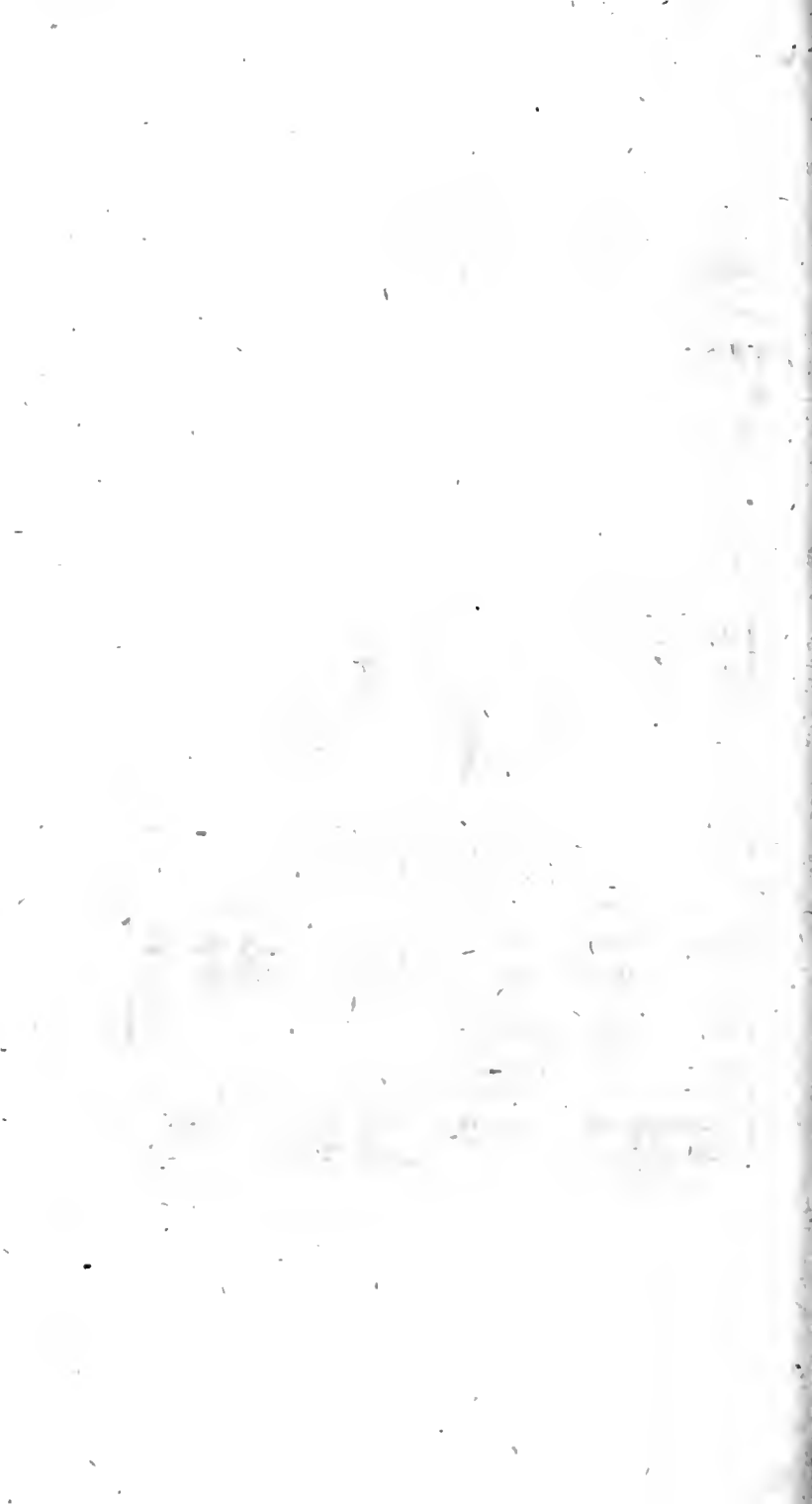
MANDRILL.





*A. Bell's sculp.*

MANDRILL.





## The MANDRILL \*, or Ribbed Nose BABOON.

THE ugliness of this baboon is perfectly disgusting. His nose, or rather his two nostrils, are flat, from which a snout perpetually runs, and he licks it into his mouth with his tongue. His head is very large, and his muzzle long. His body is squat, and his buttocks are of a blood colour. His anus is conspicuous, and situated almost as high as the loins. His face is of a violet colour, and surrounded on each side with deep longitudinal wrinkles, which

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I

augment

\* Ribbed nose baboon, with a long naked nose compressed sidewise, of a purple colour, and ribbed obliquely on each side; on the chin, a short picked orange beard; tail very hairy, about two inches long, which it carries erect; buttocks naked; hair soft, dusky mottled with yellow; length, from nose to tail, about two feet; *Pennant's synopsis of quadr. p. 103.*

*Simia maimon, caudata, subbarbata, genis caeruleis striatis, natibus calvis; Linn. syst. nat. p. 35.*

*Cercopithecus cynocephalus, parte corporis anteriore longis pilis obsita, naso violaceo nudo; Brisson. regn. anim. p. 214.*

*Mandrill*, the name which the British, who frequent the coast of Guiney, have given to this animal.

There is a strange sort of animal, called by the white men in Guiney, a *Mandrill*; but, why it is so called, I know not, nor did I ever hear of the name before; neither can those who call them so tell, except it be for its near resemblance of a human creature, though nothing at all like an ape; *Smith's voyage to Guiney, p. 52.*

augment the fullness and deformity of his aspect. He is likewise larger, and perhaps stronger than the baboon; but, at the same time, he is more peaceable, and less ferocious. We here give figures of both the male and the female, which we have seen alive. Whether they had received a better education, or if they be naturally more gentle than the baboon, they appeared to be more tractable and less impudent; but they were equally disagreeable.

This species of baboon is found on the Gold Coast, and in the other southern provinces of Africa, where he is called *boggo* by the Negroes, and *mandrill* by the Europeans. Next to the orang-outang, he is the largest of all the apes or baboons. Smith relates \*, that he had a present

\* The body of the mandrill, when full grown, is as big in circumference as a middle-sized man's. His legs are much shorter, and his feet longer, his arms and hands in proportion. The head is monstrously big, and the face broad and flat, without any other hair but the eye-brows; the nose very small, the mouth wide and the lips thin. The face, which is covered by a white skin, is extremely ugly, being all over wrinkled as with old age; the teeth broad and very yellow; the hands have no more hair than the face, but the same white skin, though all the rest of the body is covered with long black hair like a bear. They never go upon all four like apes, but cry when vexed or teased, just like children. It is said, that the males often attack and use violence to the Black women, wherever they meet them alone in the woods. They are generally very snotty-nosed, and take great delight in scraping it down from their noses to their mouths. When I was at Skerbro, one Mr Cumberbus made me a present

sent of a female mandrill, which was only six months old, and that it was as large as an adult baboon. He adds, that these mandrills walk always on two feet; that they weep and groan like men; that they have a violent passion for women, which they never fail to gratify when they find a woman at a distance from relief.

*Distinctive Characters of this Species.*

The mandrill has cheek-pouches, and callosities on the buttocks. The tail exceeds not two or three inches. The canine teeth are much thicker and longer than those of man. The muzzle is very thick, very long, and furrowed on each side with deep longitudinal wrinkles. The face is naked, and of a blueish colour. The ears, as well as the palm of the hands and soles of the feet, are naked. The hair is long,

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of

sent of one of these strange animals, which are called by the natives *Boggoe*. It was a she-cub of six months age, but was then larger than a baboon; *Smith's voyage to Guiney, p. 51*. In the same country, this animal is called *boogoe* or *boggo*, and *mandrill*, and they likewise call the orang-outang, *pongo* and *drill*. There is much similarity in these names, and they are probably derived from each other: And, in fact, the pongo and boggo, or the drill and mandrill, have several common characters. But the first is an ape without a tail, almost naked, and with a flat oval face; and the second is a baboon with a tail, long hair, and a thick and long muzzle. *Man*, in the German and English languages, signifies *man* in general; and *drill* in the jargon of some of our French provinces, denotes a *vigorous libertine*.

of a reddish brown upon the body, and gray upon the breast and belly. He walks on two feet oftener than on four. When erect, he is four or four and a half feet high; and some of them seem to be still larger. The females are subject to the *menfes*.

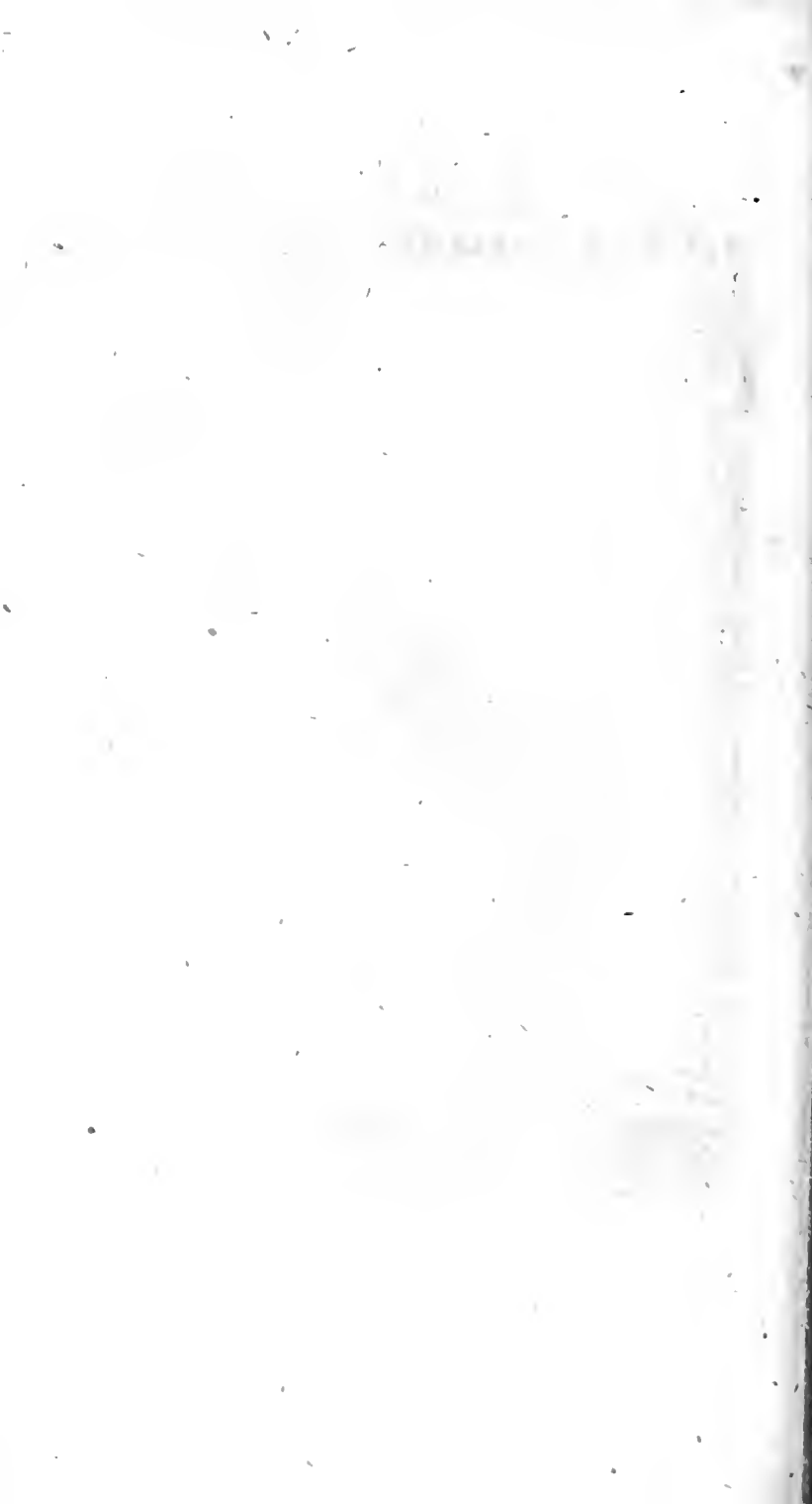


The



*Ch. Belli sculp.*

FEMALE MANDRILL.



## The OUANDEROU \* and the LOWANDO \*\*.

**T**HOUGH these two animals appear to belong to the same species, we have preserved to each of them the proper names they receive in Ceylon, which is their native country; because they constitute, at least, two distinct and permanent races. The body of the ouanderou is covered with brown and black hairs; it has a bushy head, and a large beard. The body of the lowando, on the contrary, is covered with whitish hairs, and the hair on its head and beard is black. In the same country, there is a third race or variety, which

I 3 is

\* *Ouanderou, Wandera*, the names of this animal in Ceylon. *Simia ex Egypto Venetias deducta*; *Prosp. Alpin. vol. 2. p. 245. tab. 20.*

Ouanderou, a kind of ape in Ceylon, of which there appear to be two species; *Relation de Ceylon, par Knox, tom. 1. p. 105. III. fig. ibid.*

*Cercopithecus niger, barba incana promissa, Wandera Zeylonensibus*; *Raii synopsis. quad. p. 158.*

*Cercopithecus barbatus niger, barba incana*; *Briffon, regn. a nim. p. 207.*

\*\* *Lowando, Elwanlu*, the names of this animal in Ceylon. *Nota.* 1. It appears to be only a variety of the ouanderou. 2. There seems to be another variety of these animals; the ouanderou with a black body and white beard, and the lowando with a gray body and black beard. Others of the same species are totally white.

is probably the common stock of the other two; for the hair on its body, head, and beard, is of one uniform white colour. These three animals are not apes, but baboons, of which they have all the characters both in figure and dispositions. They are wild, and even ferocious. Their muzzle is long, their tail short, and they are nearly of the same size and strength as the baboons. Their bodies are indeed less squat, and their hind parts seem to be more feeble. That of which we have given a figure, was exhibited to us under false appellations, both with regard to its name and climate. Its owners told us, that it came from the continent of America, and that it was called *cayouvassou*. I soon recollected that this word *cayouvassou* is a Brazilian term, which is pronounced *sajououassou*, and signifies *sapajou*; and, consequently, that it was improperly applied; since all the *sapajous* have very long tails. But the animal under consideration is a baboon with a very short tail. Besides, not a single species of baboon exists in America. Errors with regard to climate are very common, especially among those who exhibit wild beasts: When they are ignorant of the climate and the name of an animal, they fail not to give it a foreign denomination, which, whether true or false, equally serves their purpose.

These baboon-ouanderous, when not tamed, are so mischievous, that they must be kept in iron cages, where they are frequently agitated

with



with vast fury. But, when taken young, they are easily tamed, and appear to be even more susceptible of education than the other baboons. The Indians delight in instructing these animals, and pretend that the other apes, that is, the monkeys, have a great respect for the baboons, who are possessed of more gravity and intelligence. In a state of liberty \*, they are extremely wild, and keep perpetually in the woods †. If we may credit travellers, those which are all white are the strongest and most mischievous. They are violently fond of women, strong enough to ravish them when found alone ‡, and often injure them so as to prove fatal.

*Distinctive*

\* In Malabar, we find four species of apes: The first is all black and lustrous, with a white beard, which surrounds its chin, and is more than a palm in length. The other apes have such a respect for this species, that they humble themselves in its presence, as if they were conscious of its superiority. The Princes and Nobles esteem these bearded apes; because they appear to have more gravity and intelligence than the other kinds. They are educated for ceremonies and sports, in which they acquit themselves to the admiration of the spectators; *Voyage du Pere Vincent Marie, p. 405.*

† In Ceylon, there are monkeys as large as our spaniels. They have gray hair, a black visage, and a white beard which extends from the one ear to the other. . . . We meet with others of the same size, but of a different colour. This difference in colour appears not to alter the species; for they equally receive the denomination of *ouanderous*. They do little injury to the cultivated lands, and generally remain in the woods, where they live upon leaves and buds; but, when taken, they eat any thing; *Relation de Knox, tom. 1. p. 127. & 111.—Hist. des voyages, tom. 8. p. 545.*

‡ The white apes, which are sometimes of the size of the largest

*Distinctive Characters of this Species.*

The ouanderou has cheek-pouches, and callosities on the buttocks. The tail is seven or eight inches in length. The canine teeth are longer and larger than those of man. The muzzle is thick and long. The head is environed with a broad mane, and a large beard of coarse hairs. The body is pretty long, and thin behind. In this species, there are races which vary in colour. Some have the hair on the body black, and a white beard; in others, the hair on the body is whitish, and the beard black. They walk more frequently on four than on two feet; and, when erect, they are three or three and a half feet high. The females are subject to the periodical evacuation.

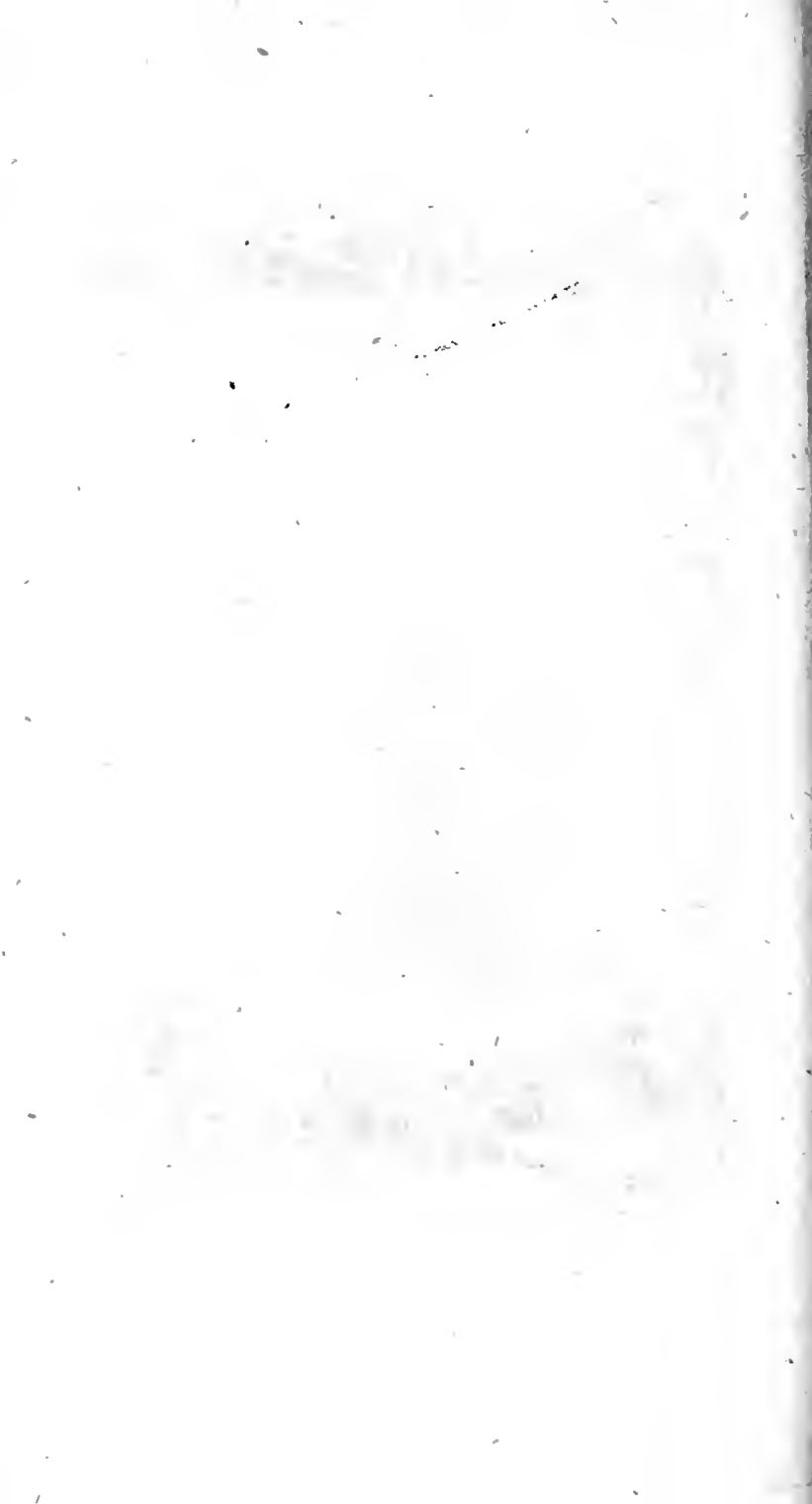
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largest bull-dogs, are more dangerous than the black. They have a great desire for women, and, after committing many outrages on them, terminate the scene by strangling them. They sometimes come to the very houses; but the natives of Macassar, who are extremely jealous of their wives, take care to prevent the admission of such hideous gallants; *Descript. de Macassar, p. 50.*



*A. Bell sculp.*

MAMON.



## The MAIMON, or Pig-tailed BABOON\*.

THE apes, baboons, and monkeys, form three tribes, with intervals between each, the first of which is filled by the magot, and the second by the maimon. The latter constitutes the link or shade between the baboons and monkeys, as the magot does between the apes and baboons. In effect, the maimon resembles the baboons by the thickness and largeness of his muzzle, and by his short, arched tail; but he differs from them, and approaches the monkeys, by the smallness of his size, and the mildness of his nature. Mr Edwards has given a figure and description of the maimon, under the denomination of the *pig-tailed ape*. This peculiar character

\* Pig-tailed baboon, with a pointed face; eyes hazel; above and beneath the mouth some few black hairs; face naked of a swarthy redness; two sharp canine teeth; ears like the human; crown of the head dusky; hair on the limbs and body brown, inclining to ash-colour; palest on the belly; fingers black; nails long and flat; thumbs on the hind feet very long, connected to the nearest toe by a broad membrane; tail four inches long, exactly like a pig's, and almost naked; the bare spaces on the rump red, and but small; length from head to tail twenty-two inches.

Pig tailed monkey; *Edwards, p. 8.*

*Simia Nemestrina, semicaudata, sub-barbata, grisea, iridibus brunneis, natibus calvis; Linn. Syst. Nat. p. 35. Brit. Mus.*

rafter is fufficient to diftinguifh him ; for, of all the baboons or monkeys, he alone has a naked, flender, and arched tail, like that of a pig. He is nearly of the fize of the magot, and has fo ftrong a refemblance to the macaque, or hare-lipped monkey, that he might be regarded as a variety of this fpecies, if his tail were not totally different. He has a naked, tawny face, chefnut coloured eyes, black eye-lids, a flat nofe, and thin lips, with fome ftiff hairs, but too fhort to form whifkers. He has not, like the apes and baboons, his tefticles and penis prominent and apparent ; the whole organs are concealed under the fkin. Hence the maimon, though vivacious and full of fire, has none of that impudent petulance peculiar to the baboons. He is gentle, tractable, and even careffing. He is found in Sumatra, and probably in other fouthern provinces of India ; of courfe he endures with difficulty the cold of our climate. The one we faw in Paris lived a fhort time only, and that which Mr Edwards defcribed, exifted only twelve months in London\*.

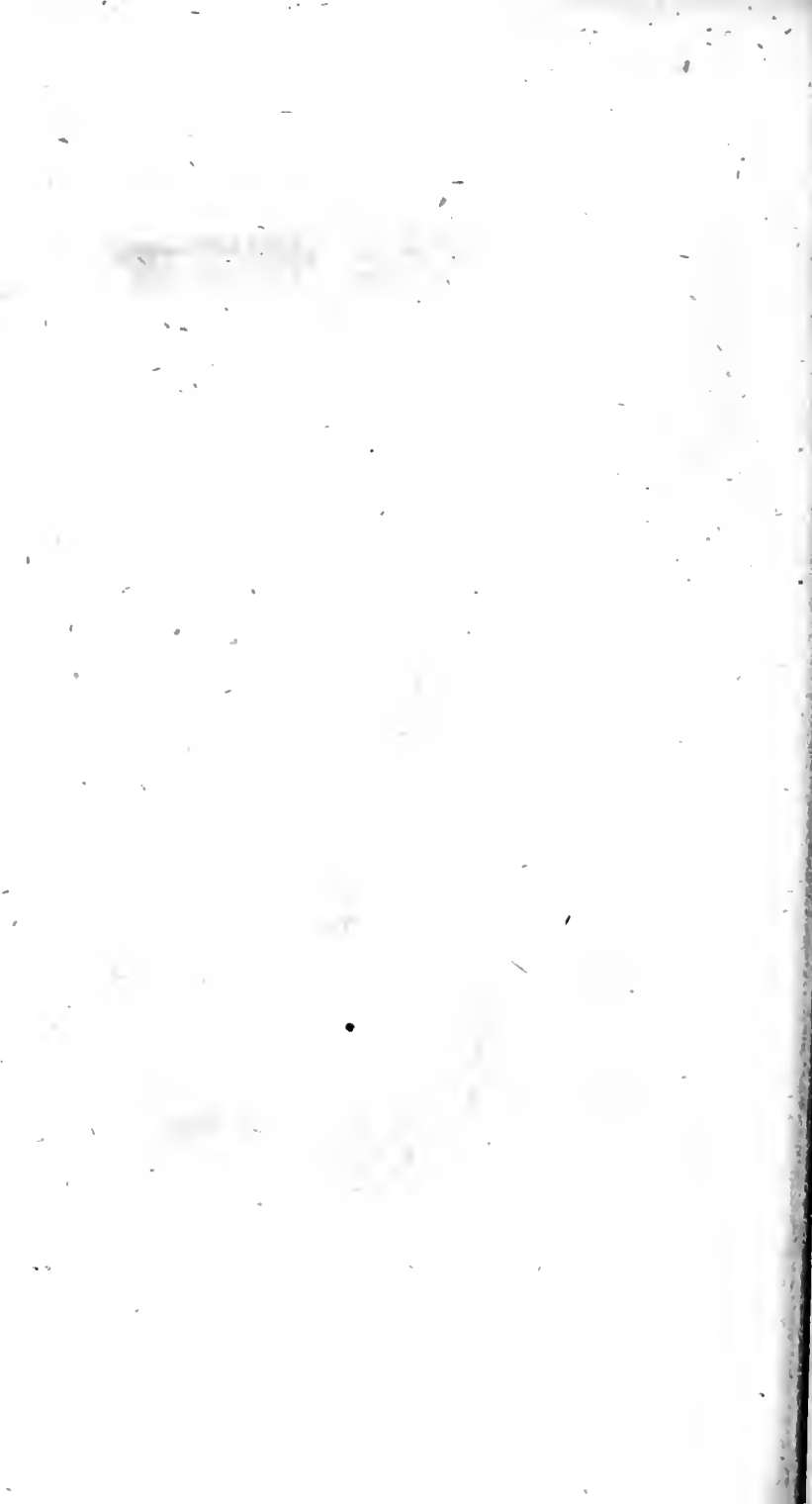
*Diffinotive*

\* The pig-tailed monkey, from the ifland of Sumatra, in the Indian Sea, was brought to England in the year 1752. . . . It was extremely lively and full of action. It was about the bignefs of a common houfe-cat. It was a male . . . . But, fince I purchafed this, which lived a year with me, I have feen a female of the fame fpecies fhown in Bartholomew fair, London. It was larger by half than mine, which I carried to compare with it. They feemed highly pleafed with each other's company, though it was the firft time of their meeting ; *Edwards's Gleanings, p. 8.*



*A. Belle sculp.*

QUANDEROU.





*Distinctive Characters of this Species.*

The maimon has cheek-pouches, callosities on the buttocks, and a naked, curled up tail from five to six inches in length. The canine teeth are not proportionally longer than those of man. The muzzle is very large; the orbits of the eyes are prominent above; the face, the ears the hands, and the feet are naked and flesh-coloured. The hair on the body is of an olive black colour, and of a reddish yellow on the belly. He sometimes walks on two, and sometimes on four feet. When erect, he is two feet, or two feet and a half high. The female is subject to the menstrual flux.

The

## The M A C A Q U E or Hare-lipped MONKEY \*, and the E G R E T †.

**O**F all the *guenons*, or monkeys with long tails, the macaque makes the nearest approach to the baboons. Like them, his body is short

\* Hare-lipped monkey, with the nostrils divided like those of a hare; nose thick, flat and wrinkled; head large; eyes small; teeth very white; body thick and clumsy; buttocks naked; tail long; colour varies, sometimes like that of a wolf, but others are brown, tinged with yellow or olive. The tail is rather shorter than the body, and is always carried arched; *Pennant's Synops. of quad.* p. 111.

*Cercopithecus Angolensis major*, macaquo; *Marcgrave, Brasl.* p. 227. *Raii Synops. quad.* p. 155. *Klein. quad.* p. 89.

*Cercopithecus cynocephalus*, naribus bifidis elatis, natibus calvis; *Briffon. quad.* p. 152.

*Simia cynomolgus*, caudata, imberbis, naribus bifidis elatis, cauda arcuata, natibus calvis; *Linn. Syst. Nat.* p. 38.

*Simia Ægyptiaca*, cauda elongata, clunibus tuberosis nudis; *Hasselquist*. Here the epithet *Ægyptiaca* is improperly applied; for Ægypt is not the native country of any species of monkeys. Etli in Ægypto nullum simiarum genus nascatur, cujuslibet tamen generis et ex Arabia felici, et ex Æthiopia immensae mercaturae causa illic convehuntur; *Prosper. Alpin. Hist. Ægypt.* lib. 4. p. 240.

† The egret monkey, with a long face, and an upright sharp pointed tuft on the top of the head; hair on the forehead black; the tuft and upper part of the body light gray; eye-brows large; beard small. It is of the size of a small cat; *Pennant's Synops. of quad.* p. 116.

*Simia aygula*, caudata, subimberbis, grisea, eminentia pilosa verticis reversa longitudinali; *Linn. Syst. Nat.* p. 39. *Osbeck's voyage*, vol. 1. p. 151.

*Cercopithecus*

short and squat, his head and muzzle large, his nose flat, his cheeks wrinkled, and, at the same time, he exceeds most of the other monkeys in size. He is also extremely ugly; so that he might be regarded as a small species of baboon, if his tail were not long and bushy, while that of the baboons in general is very short. This species is a native of Congo, and other southern provinces of Africa. It is numerous, and subject to several varieties in size, in colour, and in the disposition of the hair. The body of that described by Haffelquist was more than two feet long; and those we have seen exceed not a foot and a half. The one we have denominated *egret*, because it has a crest or tuft of hair on the top of the head, appears to be only a variety of the macaque, which it resembles in every article, except this and some other slight differences in the hair. They are both of mild manners, and extremely tractable. But, independent of a disagreeable musky odour which they both diffuse, they are so dirty, so ugly, and so loathsome, that, when they make their grimaces, they cannot be viewed without horror and disgust. These monkeys go often in troops, especially in their expeditions to rob gardens. Bosman relates, that they take in each paw a quantity of millet,

and

*Cercopithecus Angolenfis*, Macaquo. . . . Caudam portat arcuatam. . . Clamat *hab, hab*; dentes habet albissimos. . . Penem habet humano similem, instar pueri; *Marcgr. Hist. Nat. Brasl. p. 227.*

and an equal quantity under their arms and in their mouths ; that they return thus loaded leaping on their hind feet, and, when pursued, they drop the stalks which they held under their arms and in their hands, preserving only what they carry in their teeth, to enable them to run with more speed on their four feet. He adds, that they examine, with the most scrupulous accuracy, every stalk of millet they pull, and, if it does not please them, they throw it on the ground, and tear up others. By this delicacy of choice, they do more damage than by their robberies\*.

*Distinctive Characters of this Species.*

The macaque has cheek-pouches, and callosities on his buttocks. His tail is from eighteen to twenty inches long. His head is large, his muzzle very thick, and his face naked, livid, and wrinkled. His ears are covered with hair. His body is short and squat, and his limbs thick and short. The hair on the superior parts of his body is of a greenish ash-colour, and of a yellowish gray on the breast and belly. He has a small crest of hair on the top of the head. He walks on four and sometimes on two feet. The length of his body, comprehending that of the head, is about eighteen or twenty inches. In this species, there appear to be races much larger,

\* Voyage de Bosman, p. 258.





*A. Bell sculpt.*

MACAQUE.



*E. Bell sculpt.*

AIGRETTE.





ger, and others much smaller, such as that of the following.

The egret seems to be only a variety of the macaque : He is about one third less in all his dimensions. Instead of a small crest of hair on the top of the head, as in the macaque, the egret has an erect, pointed tuft. The hair on his front is black ; but that on the front of the macaque is greenish. The tail of the egret is likewise proportionally larger than that of the macaque. The females of both kinds have periodic evacuations.

The

## The PATAS \*, or red MONKEY.

**T**HE Patas belongs to the same country, and is nearly of the same size with the macaque ; but his body is longer, his face less hideous, and his hair more beautiful. He is remarkable for the brilliancy of his robe, which is of so vivid a red as to have the appearance of being painted. We have seen two varieties of this species. The first has a black line above the eyes, which extends from ear to ear. The second differs from the first only in the colour of this line, which is white. Both have long hair under the chin and round the cheeks, which makes a fine beard : But, in the first, it is yellow, and, in the second, white. This variety seems to indicate others in the colour of the hair ; and I am inclined to think, that the monkey mentioned

\* The name of this monkey in Senegal, its native country. It is commonly called the *red ape of Senegal*.

Brue found in Tabao a new species of ape, of so lively a red colour, that a person would have imagined it to be painted. The Negroes call it *Patas* ; *Relat. de Brue, Hist. gen. des voyages, tom. 2. p. 520.*

Red monkey with a long nose ; eyes sunk in the head ; ears furnished with pretty long hairs ; body slender : Over each eye, from ear to ear, extends a black line : The upper part of the body of a most beautiful and bright bay, almost red, so vivid as to appear painted ; the lower parts ash-colour, tinged with yellow. The tail is not so long as the body, the length of which is about one foot six inches ; *Pennant's Synopsis of quadr. p. 116.*

mentioned by Marmol \*, which is of the colour of a wild cat, and said to come from the Negro country, is a variety of the patas.

These monkeys are not equally dexterous as the other kinds ; and, at the same time, they are extremely inquisitive. ‘ I have seen them,’ says Brue, ‘ descend from the tops of the trees to the extremities of the branches, in order to admire the barks as they passed. They stare for some time, seem to be entertained with what they have seen, and then give place to those who come after. They became so familiar as to throw branches at the Frenchmen, who returned the compliment by the shot of their muskets. Some of them fell, others were wounded, and the rest were struck with a strange consternation. One party raised hideous cries ; another collected stones to throw at the enemy : Some of them, with their bowels in their hands, attempted to throw their intrails at the spectators. At last, perceiving the combat to be at least equal, they retired †.’

It is probably this species of monkey which le Maire speaks of in the following terms : ‘ The havoc which these monkeys make in the fields of Senegal, when the millet and other grains are ripe, is not to be expressed. They

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‘ assemble

\* The apes of the colour of a wild cat, with a long tail, and a white or black muzzle, commonly called in Spain *Galopaulés*, come from the Negro country ; *L'Afrique de Marmol*, tom. 1. p. 57.

† Relat. de Brue, Hist. gen. des voyages, tom. 2. p. 521.

‘ assemble to the number of forty or fifty. One  
 ‘ of them stands sentinel on a tree, listens, and  
 ‘ looks about on all sides, while the others are  
 ‘ busy. When he perceives any person, he sets  
 ‘ up loud shrieks to alarm the band, who obey  
 ‘ the signal, fly off with their prey, leaping from  
 ‘ tree to tree with prodigious agility. The fe-  
 ‘ males, who carry their young in their arms, fly  
 ‘ with the rest, and leap as if they were loaded  
 ‘ with no burden \*.’

Though, in every region of Africa, the species of apes, baboons, and monkeys, are very numerous, some of which are pretty similar; yet it is remarked by travellers, that they never intermix, and that each species commonly inhabits a different quarter of the country †.

*Distinctive Characters of this Species.*

The patas has cheek-pouches and callosities on his buttocks. His tail is as long as both his body and head. The top of his head is flat. His muzzle, body, and legs, are long. He has black hair on his nose, and a narrow band of the same colour above his eyes, which extends from ear to ear. The hair on the upper parts of his body

\* Voyage de le Maire, p. 103.

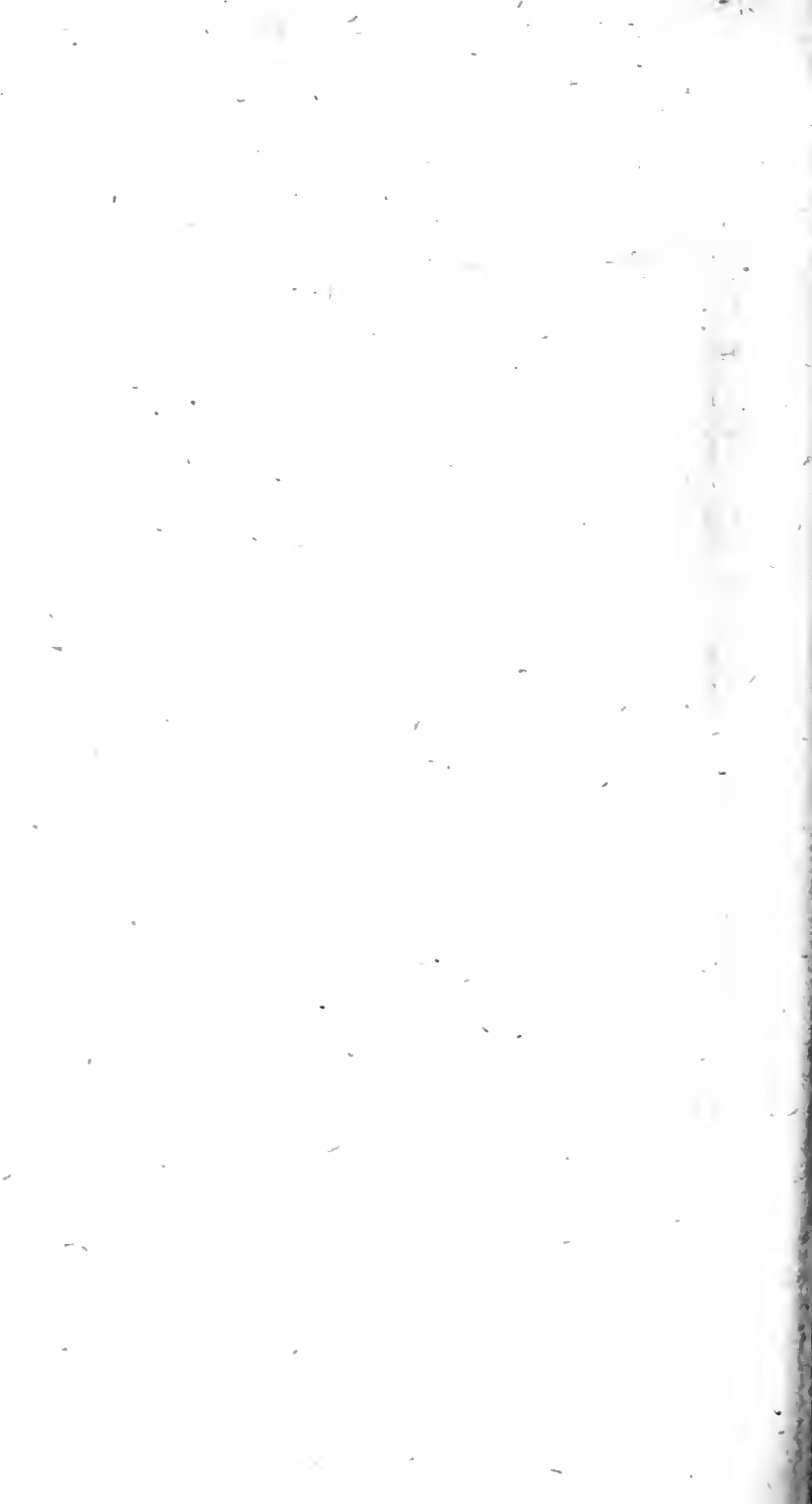
† It would be endless to describe all the species of apes which are found from Arquin to Sierra-Leona. It is remarkable, that they do not intermix, and that two kinds are never seen in the same quarter; *Hist. gen. des voyages, tom. 2. p. 221.*

Plate CCLXXII.



*Abbott's sculp!*

BLACK BANDED PATAS.







*A. Bell Julp.*

WHITE BANDED PATAS.



body is almost red, and that on the under parts, as the throat, breast, and belly, is of a yellow gray colour. This species varies in the colour of the band above the eyes. It is black in some, and white in others. They walk oftener on four than on two feet. When enraged, they agitate not their jaws, like the other monkeys. From the point of the muzzle to the origin of the tail, they are about a foot and a half or two feet in length. Some of them, as appears from the relations of travellers, are larger. The females menstruate.

The MALBROUCK\*, and CHINESE-BONNET †.

THESE two monkeys seem to be of the same species, which, though different in some respects from that of the macaque, makes so near an approach to it, that we are doubtful whether the macaque, the egret, the malbrouck, and the Chinese-bonnet, are four varieties only, or permanent races, of the same species. As these animals produce not in our climate, we cannot ascertain the identity or diversity of their species, but must judge from the differences in their figure and external qualities. The macaque and the egret are so similar, that we presumed them to be one species. It is the same with the malbrouck and Chinese-bonnet. But, as the latter differ from the former more than they differ between themselves, we thought it best to separate them.

Our presumption, with regard to the diversity of these two species, is founded, 1. On the difference

\* The name of this animal in Bengal, its native country.

*Cercopithecus primus* Clusii, p. 37. Clusius is wrong when he says, that this monkey's tail terminates in a tuft.

† Chinese monkey with a long smooth nose, of a whitish colour: hair on the crown of the head long, lying flat, and parted like that of a man; colour, a pale cinereous brown; Pennant's *Synops. of quad.* p. 117.

Rillow; Knox's Ceylon, p. 26.

ference in their figure; 2. On those of the colour and disposition of the hair; 3. On the different proportions in the skeletons of the two kinds; and, in fine, on the two former being natives of the southern regions of Africa, while the two latter are natives of Bengal. This last consideration is of equal weight with any of the others; for we have shown, that, in wild animals totally independent of man, the distance of climate is a pretty certain indication of remoteness of species. Besides, the malbrouck and Chinese-bonnet are not the only species or races of monkeys found in Bengal\*. It appears, from the evidence of travellers, that there are four varieties, namely, white, black, red, and gray monkeys. They alledge that the black kind are most easily tamed. Those we saw were of a reddish gray colour, and appeared to be tame, and even docile.

‘ These animals,’ travellers remark †, ‘ steal  
 ‘ fruits, and particularly the sugar cane. One  
 ‘ stands sentinel on a tree, while the others load  
 ‘ themselves with the booty. If he perceives  
 ‘ any person, he cries *houp, houp, houp*, with a  
 K 3 ‘ loud

\* The monkey of Calicut, with grayish hair, mentioned by Pyrard, should probably be referred to the malbrouck species. In this country, the killing of monkeys is prohibited. They are so importunate, troublesome, and numerous, that they do much damage. The inhabitants of the towns and villages are obliged to lattice their windows, to prevent the monkeys from entering their houses; *Voyages de Fr. Pyrard*, tom. 1. p. 427.

† *Voyages d’Inigo de Biervillas*, p. 172.

‘ loud and distinct voice. The moment this  
‘ signal is given, the whole troop throw down  
‘ the canes they held in their left hand, and run  
‘ off on three feet. - When pursued hard, they  
‘ quit what they had in their right hand, and  
‘ save themselves by climbing trees, which are  
‘ the usual places of their abode. They leap  
‘ from tree to tree; and even the females,  
‘ though loaded with their young, which they  
‘ hold firmly, leap like the others; but they  
‘ sometimes fall. These animals are never more  
‘ than half-tamed, and always require a chain.  
‘ Even in their own country, they never pro-  
‘ duce, when in bondage: They require to be  
‘ at perfect freedom in the woods. When fruits  
‘ and succulent plants fail, they eat insects, and  
‘ sometimes descend to the margins of rivers,  
‘ and the sea-coast, to catch fishes and crabs.  
‘ They put their tail between the pincers of  
‘ the crab, and, whenever the pincers are closed,  
‘ they carry it quickly off, and eat it at their  
‘ leisure. They gather cocoa nuts, and are well  
‘ acquainted with the method of extracting the  
‘ juice for drink, and the kernel for food. They  
‘ likewise drink the *zari* that drops from the  
‘ *bamboos*, which they place on the tops of trees,  
‘ in order to extract the liquors; and they use  
‘ it occasionally. They are taken by means of  
‘ a cocoa nut, with a small hole made in it.  
‘ They put their paw into the hole with difficul-  
‘ ty,

' ty, because it is narrow; and the people who  
 ' are watching, seize them before they can dis-  
 ' engage themselves. In the provinces of India  
 ' inhabited by the Bramins, who kill no ani-  
 ' mals, the number of monkeys, which are high-  
 ' ly venerated, is almost infinite. They come  
 ' in troops into the cities, and enter the houses  
 ' at all times with perfect freedom; so that those  
 ' who sell provisions, and particularly fruits,  
 ' pot-herbs, &c. have much difficulty in preserv-  
 ' ing their commodities.' In Amadabad, the  
 capital of Guzarat, there are three hospitals for  
 animals, where lame and sick monkeys, and even  
 those who, without being diseased, choose to  
 dwell there, are fed and cherished. Twice every  
 week, the monkeys in the neighbourhood as-  
 semble spontaneously in the streets of the city.  
 They then mount upon the houses, each of which  
 has a small terrace, or a flat roof, where they lie  
 during the great heats. On these two days, the  
 inhabitants fail not to lay upon these terraces  
 rice, millet, sugar canes, and other fruits in their  
 season; for, if these animals, by any accident,  
 find not their provisions in the accustomed place,  
 they break the tiles which cover the rest of the  
 house, and commit great outrages. They never  
 eat any thing, without thoroughly examining it;  
 and, when full, they fill their cheek-pouches for  
 another occasion. In places frequented by the  
 monkeys, the birds dare not build their nests on  
 the

the trees; for they never fail to destroy the nests, and dash the eggs on the ground\*.

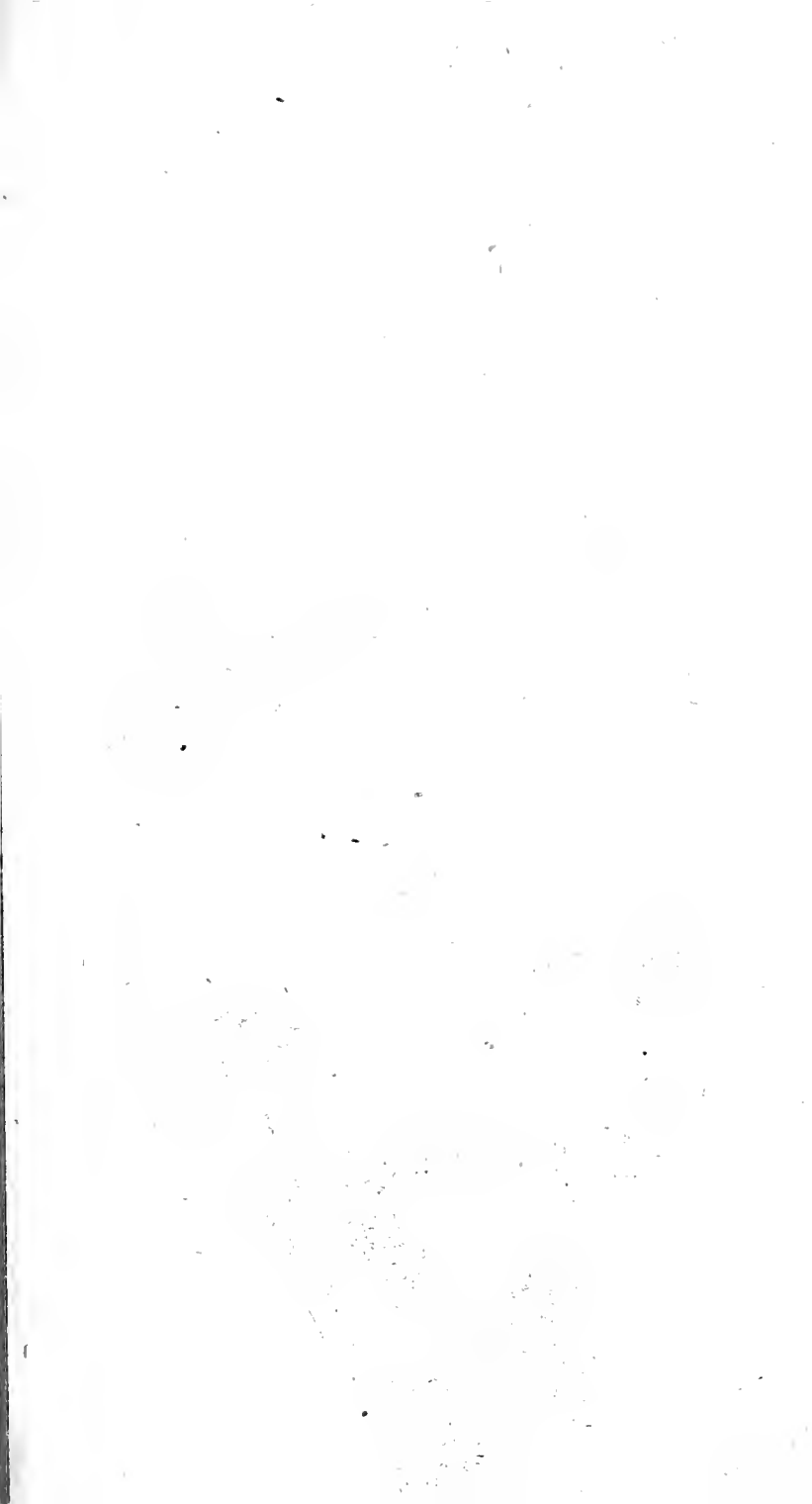
Neither the tiger nor other ferocious animals are the most formidable enemies to the monkeys; for they easily make their escape by their nimbleness, and by living on the tops of trees, where nothing but serpents have the art of surprising them. ‘The apes,’ a traveller remarks, ‘are masters of the forests; for their dominion is not disputed either by the tiger or lion. The only animals they have to dread are the serpents, who make perpetual war upon them. Some of these serpents are of a prodigious size, and swallow an ape in a moment. Others are smaller, but more agile, and go in quest of the apes on the trees. . . . They watch the time when the apes sleep †,’ &c.

*Distinctive Characters of these Species.*

The malbrouck has cheek-pouches and callosities on his buttocks. The tail is nearly as long as both the body and head. The eyelids are flesh-coloured, and the face of a cinereous

\* See les voyages de la Boulaye le Gouz, p. 253. Relat. de Thevenot, tom 3. p. 20. Voyage de Gemelli Carreri, tom. 5. p. 164. Le Recueil des voyages qui ont servi a l'établissement de la Compagnie de Indes Orientales, tom. 7. p. 36. Voyage d'Orient du P. Philippe, p. 312. et Voyage de Tavernier, tom. 3. p. 64.

† Descript. Historique de Macacar, p. 51.





*A Bell Sculp.*

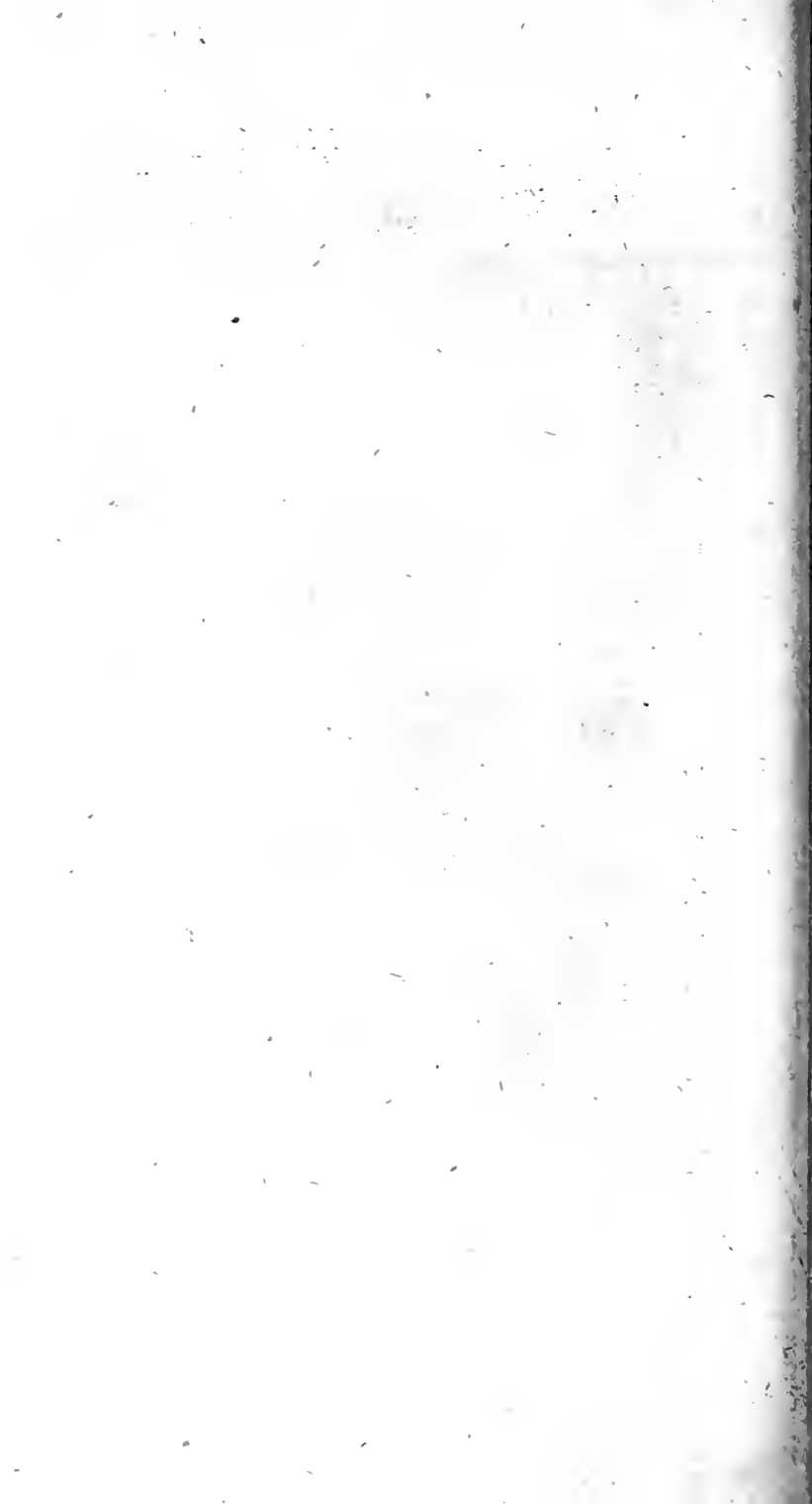
MALBROUK.





*A Bell's sculp.*

CHINESE BONNET.



ous gray. The eyes and muzzle are large. The ears are large, thin, and flesh-coloured. He has a band of gray hair, like the mone or varied monkey; but the superior parts of his body are of a uniform yellowish brown colour, and the inferior are of a yellowish gray. He walks on four feet, and is about a foot and a half long from the point of the muzzle to the origin of the tail.

The Chinese-bonnet appears to be a variety of the malbrouck. They differ in the two following articles: In the former, the hair on the top of the head is disposed in the form of a flat bonnet, from which its name has been derived, and its tail is proportionally longer. The females of both these races are subject to a periodic evacuation.

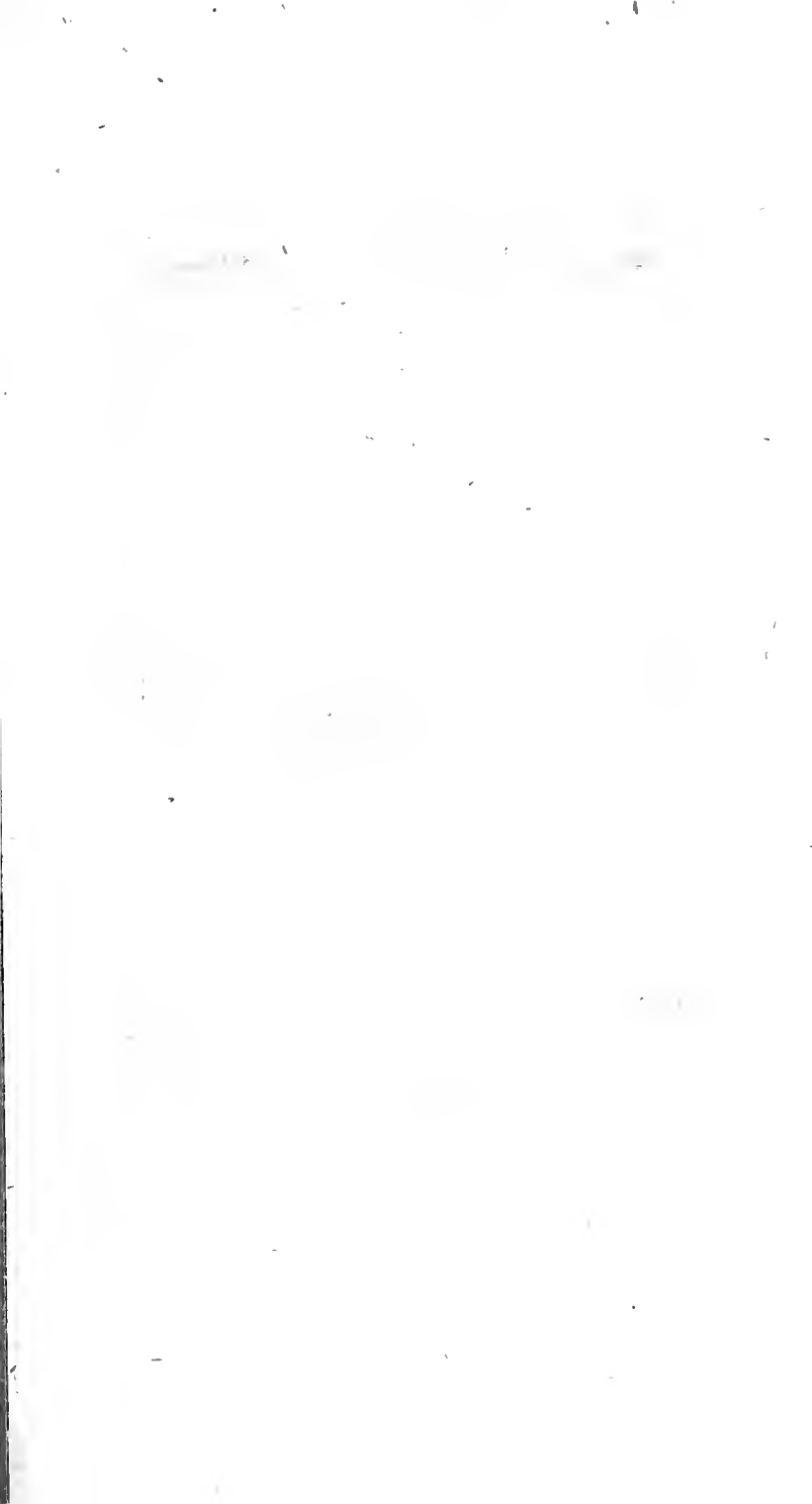
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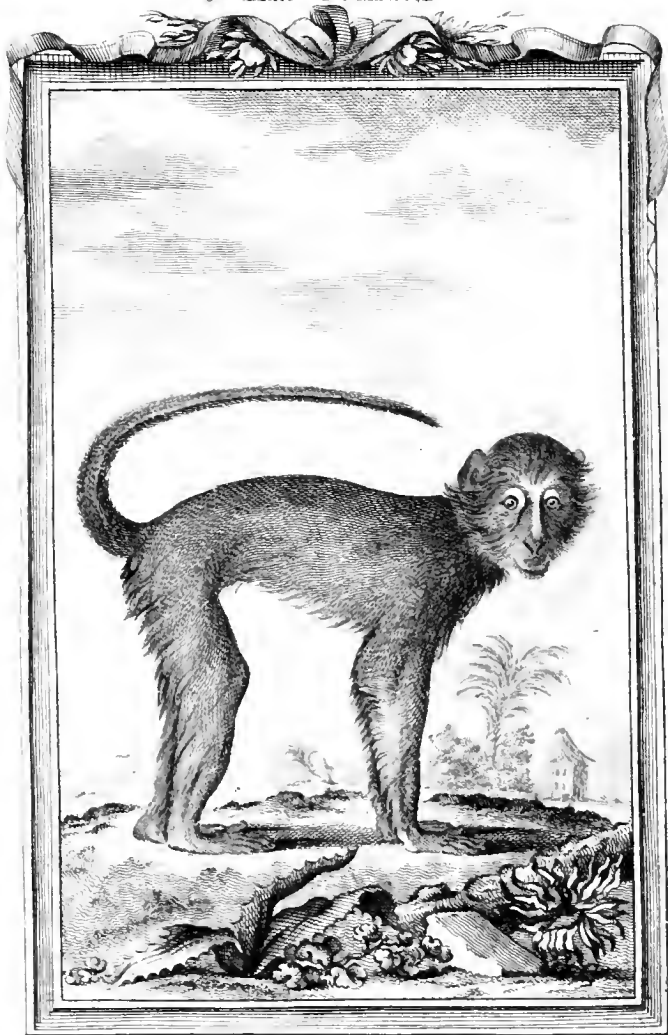
The MANGABEY\*, or MONKEY  
with white EYE-LIDS.

WE have had two individuals of this species, both of which were sent to us under the appellation of *Madagascar apes*. It is easy to distinguish the mangabeys from all the other monkeys by a very remarkable character. Their eye-lids are naked, and of a very splendid white colour. They have a thick, broad, long muzzle, and a prominent ring round their eyes. Some of them have the hair on the head, neck, and upper part of the body of a yellow brown colour, and that on the belly white. In others, the hair on the head and body is lighter; and they are distinguished from the rest by a broad collar of white hair, which surrounds their neck and cheeks. Both carry their tail arched, and its hair is long and bushy. They come from the same country as the vari, or ruffed maucauco; and, as they resemble him in the length  
of

\* Monkey with a long, black, naked, and dog-like face: the upper eye-lids of a pure white; ears black, and like the human; no canine teeth; hairs on the sides of the face, beneath the cheeks, longer than the rest; tail long; colour of the whole body tawny and black; flat nails on the thumbs and fore fingers; blunt claws on the others; hands and feet black; *Pennant's synzsf. of quad. p. 114.*

*Simia Æthiops, caudata, imberbis, capillitio arrecto, lunulaque frontis albis; Linn. Syst. Nat. p. 39.*





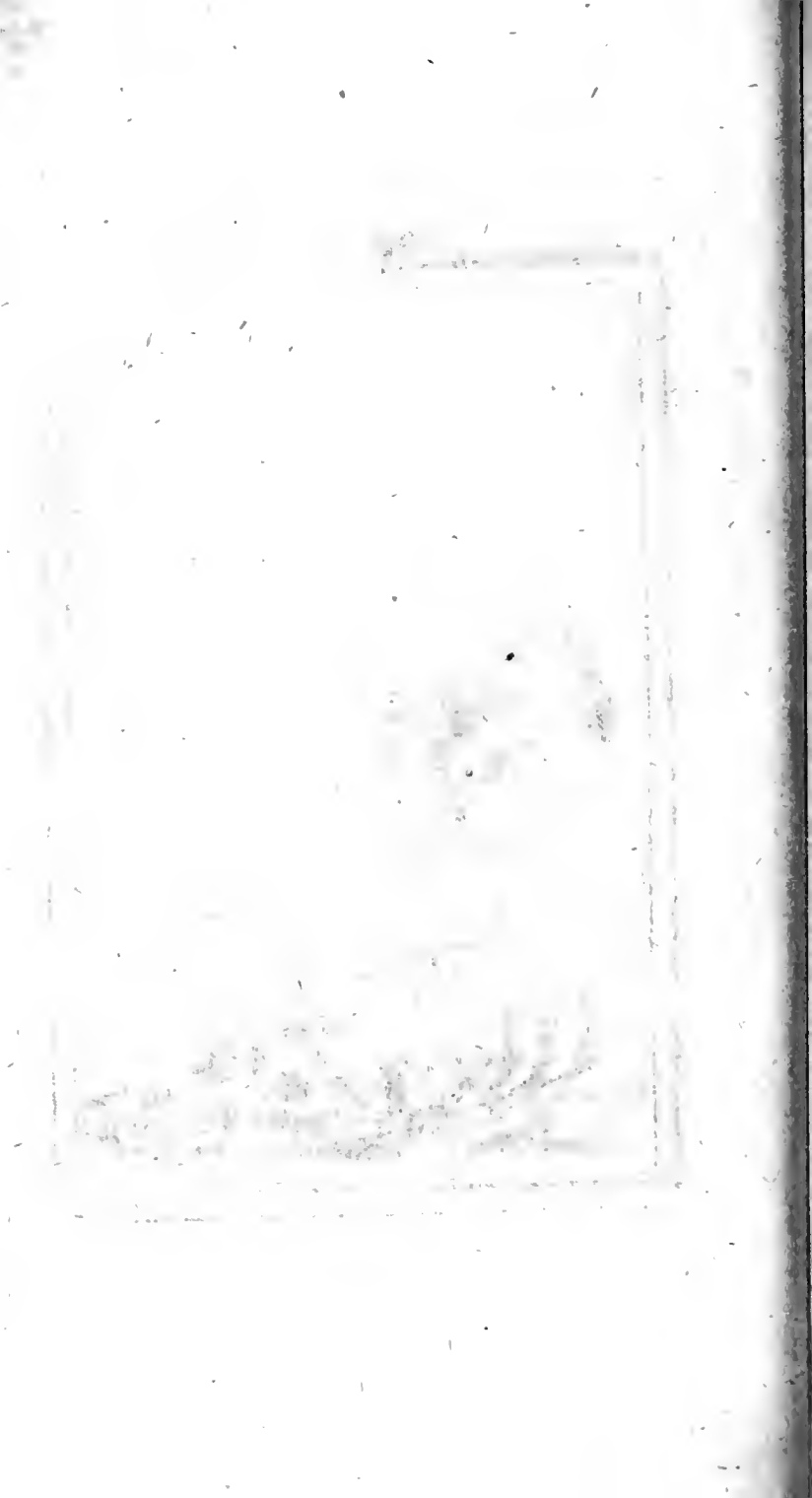
MANGABEY.

*A. Belle sculp.*



*J. B. de Sauter sculp!*

MANGABEY,  
with a white Collar.





of the muzzle and tail, in the manner of carrying the latter, and in the varieties of colour, they seem to form the shade between the *makis* and the guenons, or long-tailed monkeys.

*Distinctive Characters of this Species.*

The mangabey has cheek-pouches and callosities on the buttocks. The tail is as long as both the body and head. He has a prominent ring round the eyes, and the upper eye-lid is extremely white. The muzzle is thick and long. The eye-brows consist of stiff, crisped hair, and the ears are black and almost naked. The hair on the superior parts of the body is brown, and that on the inferior is gray. There are varieties in this species: Some of them are of a uniform colour; others have a white circle round the neck, and round the cheeks, in the form of a beard. They walk on four feet, and are nearly a foot and a half long, from the extremity of the muzzle to the origin of the tail. The females of these species menstruate.

The

## The MONA \*, or varied MONKEY.

**T**HE mona is the most common of the monkeys. We had one alive for several years. The mona and the magot agree best with the temperature of our climate. This circumstance is alone sufficient to prove, that the mona is not a native of the southern regions of Africa and the East Indies ; and, in fact, it is found in Barbary, Arabia, Persia, and other parts of Asia which

\* *Mone, mona, monina, mounina*, the names of the long-tailed monkeys in the Morefk, Spanish, and Provençal languages. — ‘Peperiuntur in Mauritaniae fylvis simiarum variae species, quarum quae caudam gerunt *Monae* dicuntur ;’ *Leo. Afric. Descrip. vol. 2. p. 757.* — ‘Simiae caudate et barbatae, quae vulgo *Monichi* vocantur ;’ *Prosper. Alpin. Hist. Egypt. p. 242. Nota.* The term *Monkey*, which the British give to the long-tailed apes, is derived from *monichi* ; and both seem to come from *mona*, or *monina*, the original names of these animals.

Varied monkey, with a short thick nose, of a dirty flesh colour ; hair on the sides of the face, and under the throat, long ; the colour yellow and black ; on the forehead, gray ; above the eyes, from ear to ear, a black line ; the upper part of the body dusky and red ; the belly whitish ; outside of the thighs, and the feet, black ; the tail of a cinereous brown ; length about a foot and a half, the tail above two ; *Pennant’s synops. of quad. p. 118.*

*Kebos*, and *Kipor*, names by which the Greeks and Arabs denote the long-tailed apes, with variegated colours.

*Cercopithecus pilis ex nigro et rufo variegatis vestitus, pedibus nigris, cauda cinerea : Le singe varie ; Brisson. quad. p. 141.*

which were known to the ancients \*, who called it *kebos*, *cebus*, or *coephus*, on account of the variety of its colours. Its face is brown, with a kind of beard interspersed with white, yellow, and a little black. The hair on the top of the head and neck is a mixture of yellow and black: That on the back is a mixture of red and black. The belly, as well as the inside of the thighs and legs, are whitish. The external parts of the legs and feet are black, and the tail is of a deep gray colour. There are two small white spots, one on each side of the root of the tail, a crescent of gray hair on the front, and a black band from the eyes to the ears, and from the ears to the shoulders and arms. Some have called it *nonne* from a corruption of *mone* or *mona*, and others the *old man*, on account of its gray beard. But the vulgar appellation of *varied monkey* is best known, and corresponds with the Greek name *kebos*, and Aristotle's definition of the *monkey with a long tail, and various colours*.

In general, the monkeys have milder dispositions than the baboons, and their character is less melancholy than that of the apes. They are extravagantly vivacious; but have no ferocity; for they become tractable the moment their attention is fixed by fear or restraint. The *mona* is particularly susceptible of education, and even of some attachment to those who take care

\* *Monichi simiae caudatae et barbatae ex Æthiopia locis conterminis in Egyptum deducuntur; suntque admodum cicures et mundae; Prosper. Alpin. Hist. Egypt. p. 242.*

care of him. The one we kept allowed himself to be touched and carried about by the people with whom he was acquainted ; but, to others, he permitted not this freedom, and even bit them. He likewise endeavoured to obtain his liberty : He was fixed with a long chain. When he could either break the chain or disengage himself, he fled to the fields, and, though he did not spontaneously return, he allowed himself to be taken by his master. He eat every thing, roasted meat, bread, and particularly fruits. He likewise searched for spiders, ants, and insects \*. When several morsels were thrown to him at once, he filled his cheeks with them. This practice is common to all the baboons and monkeys, to whom Nature has given pouches in their cheeks, where they can keep a quantity of food sufficient to nourish them for a day or two.

*Distinctive Characters of this Species.*

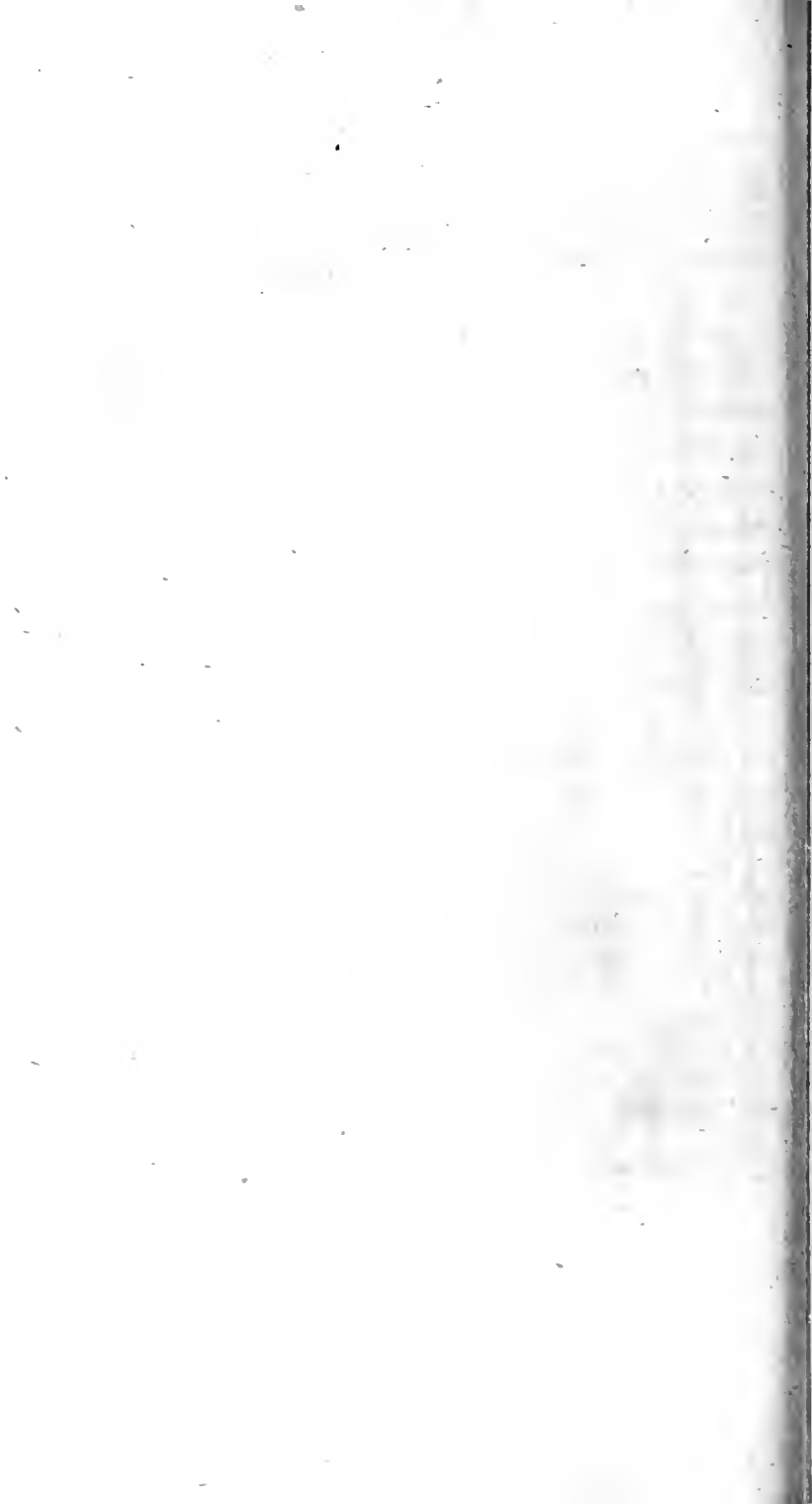
The mona has cheek-pouches, and callosities on the buttocks. The tail is about two feet long, and more than half a foot longer than both the body and head. The head is small  
and

\* It is probably this species which Ludolf mentions under the denomination of the *Abyssinian ape*. 'They come,' says he, 'in great troops. As they are exceedingly fond of ants and worms, they reverse every stone, in order to catch the insects they cover ;' *Hist. de l'Abyssinie*, p. 41.



*A. Bell's sculp.*

MONA.



and round ; the muzzle is thick and short ; and the face is of a bright tawny colour. He has a gray band upon the front, and a black band extending from the eyes to the ears, and from the ears to the shoulders and arms. He has a kind of gray beard, formed by the hairs on his throat, which is longer than the others. The hair on the body is a reddish black, and that on the belly is whitish. The outside of the legs and feet are black ; and the tail is of a grayish brown colour, with two white spots on each side of its root. He walks on four feet ; and his length, from the point of the muzzle to the origin of the tail, is about a foot and a half. The female is subject to the *menfes*.

The

## The CALLITRIX, or GREEN-MONKEY\*.

**C**ALLITRIX is a term employed by Homer, to denote, in general, the beautiful colour of the hair of animals. It was not till several ages after Homer's time, that the Greeks applied this name to particular species of monkeys. Its application to the animal under consideration is peculiarly proper. The body is of a beautiful green colour, the throat and belly are white, and the face is of a fine black. He is found in Mauritania, and in the territories of ancient Carthage. Hence it is probable that he was known to the Greeks and Romans, and that

\* Green monkey, with a black and flattish face, the sides of it bounded by long white hairs, falling backwards, and almost covering the ears, which are black, and like the human; head, limbs, and whole upper part of the body and tail, covered with soft hairs, of a yellowish green colour at their ends, and cinereous at their roots; under side of the body and tail, and inner side of the limbs, of a silvery colour, tail very long and slender; size of a small cat; *Pennant's synopsis of quad.* p. 113.

*Simius callitrichus*; *Prosper. Alpin. Egypt. vol. 1.*

*Simia Sabaea, caudata, imberbis, facie atra, cauda cinerea, natibus calvis*; *Linn. syst. nat. p. 38.*

*Cercopithecus ex cinereo flavescens, genis longis pilis albis obfritis*; *Briffon. quad. p. 145.*

Green monkey; *Edwards's Gleanings, p. 10.*

In the Cape de Verd islands, there are apes with a long tail, and a black face; *Dampier's voyage, tom. 4.*



that it was one of those long-tailed monkeys to which they gave the name of *callitrix*. In the neighbourhood of Egypt, both on the Æthiopian and Arabian side, there are white monkeys, which the ancients have likewise denoted by the generic name of *callitrix*. Prosper Alpinus and Pietro della Valle \* mention these white monkeys. We have not seen this species: It is perhaps only a variety of the green monkey, or of the *mona*, which is very common in these countries.

The green monkey seems also to be found in Senegal, as well as in Mauritania and the Cape de Verd islands. M. Adanson relates, that the woods of Podor, along the river Niger, are filled with green apes. 'I discovered apes,' says he, 'only by the branches they throw down from the tops of the trees; for, in other respects, they are so silent and nimble in their gambols, that it would be difficult to perceive them. I killed one, two, and even three, before the others seemed to be alarmed. However, after most of them were wounded, they began to take shel-

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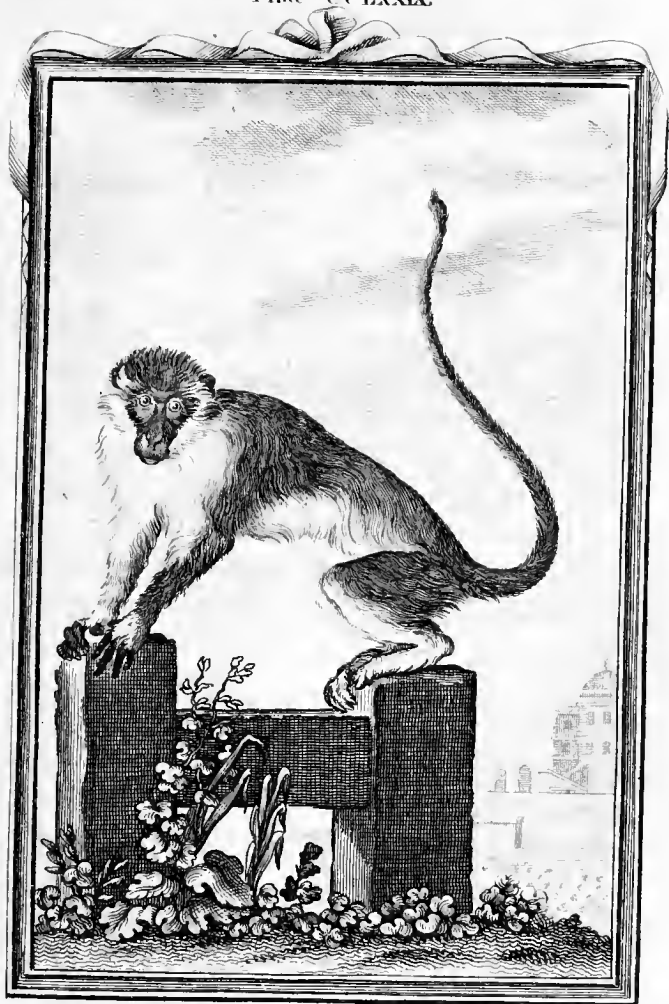
'ter;

\* *Simium Callitrichum Cairi* in aedibus habuimus, selem magnam quadamtenus magnitudine aemulantem, prolixiori corporis figura, capite parvo erat et rotundo—corpore circa illa gracilissimo, toto corpore rufo rutilove spectabatur, facies vero humanae similis fuit nigra, undique barbata, sed barba albi erat coloris—caudamque longam rutilamque habebat; *Prosp. Alp. Hist. Egypt. lib. 4. p. 244. fig. tab. 20. No. 4.*—In Cairo, I likewise saw several living animals, as *callitrices*, or white monkeys; *Voyage de Pietro della Valle, tom. 1. p. 401.*

'ter; some of them concealed themselves be-  
 'hind the large branches, some descended on  
 'the ground, and the greatest number sprung  
 'from the top of one tree to another. . . . .  
 'During this operation, I continued to shoot,  
 'and, in the space of twenty fathoms, I killed  
 'twenty-three in less than an hour, and not one  
 'of them uttered the smallest cry, though  
 'they frequently assembled in troops, grinded  
 'their teeth, and assumed a threatening aspect,  
 'as if they meant to attack me;' *Voyage au Se-  
 negal, par M. Adanson, p. 178.*

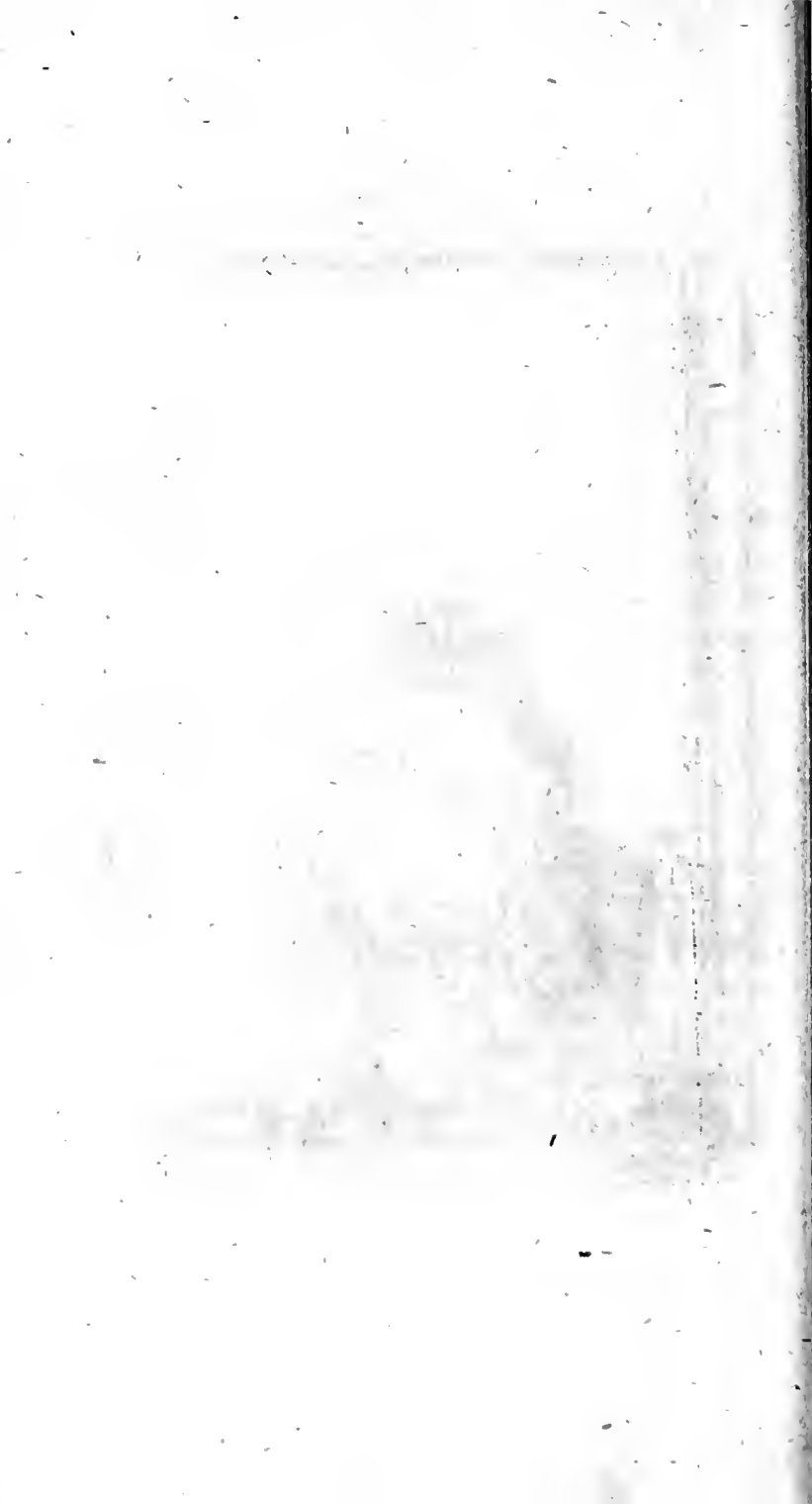
*Distinctive Characters of this Species.*

The callitrix has cheek-pouches and callosities on the buttocks. The tail is much longer than both the body and head. The head is small, the muzzle long, and the face and ears are black. Instead of eye-brows, a band of black hairs runs along the bottom of the front. The body is of a vivid green mixed with a little yellow. He walks on four feet; and the length of his body, comprehending that of the head, is about fifteen inches. The female is subject to the menstrual flux.



*A. Bell's sculp.*

CALITRIX.



## T H E M U S T A C H E \*.

**T**HE mustache seems to belong to the same country as the macaque; because, like the latter, his body is shorter and more squat than in the other monkeys. It is probably the same animal which the voyagers to Guiney have called *white-nose* †; because the lips below the nose are of a bright white colour, and the rest of the face is of a blackish blue. There are also two tufts of yellow hair under the ears, which

L 2

give

\* Mustache monkey, with a short nose, the end marked with a transverse line of pure white; the face naked, and of a dusky blue; on the cheeks, before the eyes, two large tufts of yellow hairs, like mustaches; the hair on the top of the head long and upright; round the mouth are some black hairs; the colour of the hair on the head yellow, on the body and limbs, a mixture of red and ash-colour; the rest yellowish; the under part of the body paler than the upper; the feet black; the nails flat: Its length one foot, that of the tail eighteen inches; *Pennant's Synops. of quad. p. 114.*

*Cercopithecus alius, Guineensis; Marcgr. Brasil. p. 228. Raii synops. quad. p. 156.*

*Simia cephus, caudata, buccis barbatis, vertice flavescente, pedibus nigris, cauda apice ferruginea; Linn. Syst. Nat. p. 114.*

*Cercopithecus nigricans, genis et auriculis longis pilis ex albo flavicantibus oblitis, ore caerulecente; Brisson. quad. p. 146.*

† There are other apes on the Gold coast, which are called *white-noses*, because that is the only part of their body which is white. They are ferocious and stinking animals; *Relat. d'Artus, Hist. gen. des Voyages, tom. 4. p. 238.*

give it a singular appearance ; and, as it is, at the same time, very small, it appears to be the most beautiful of all the monkeys.

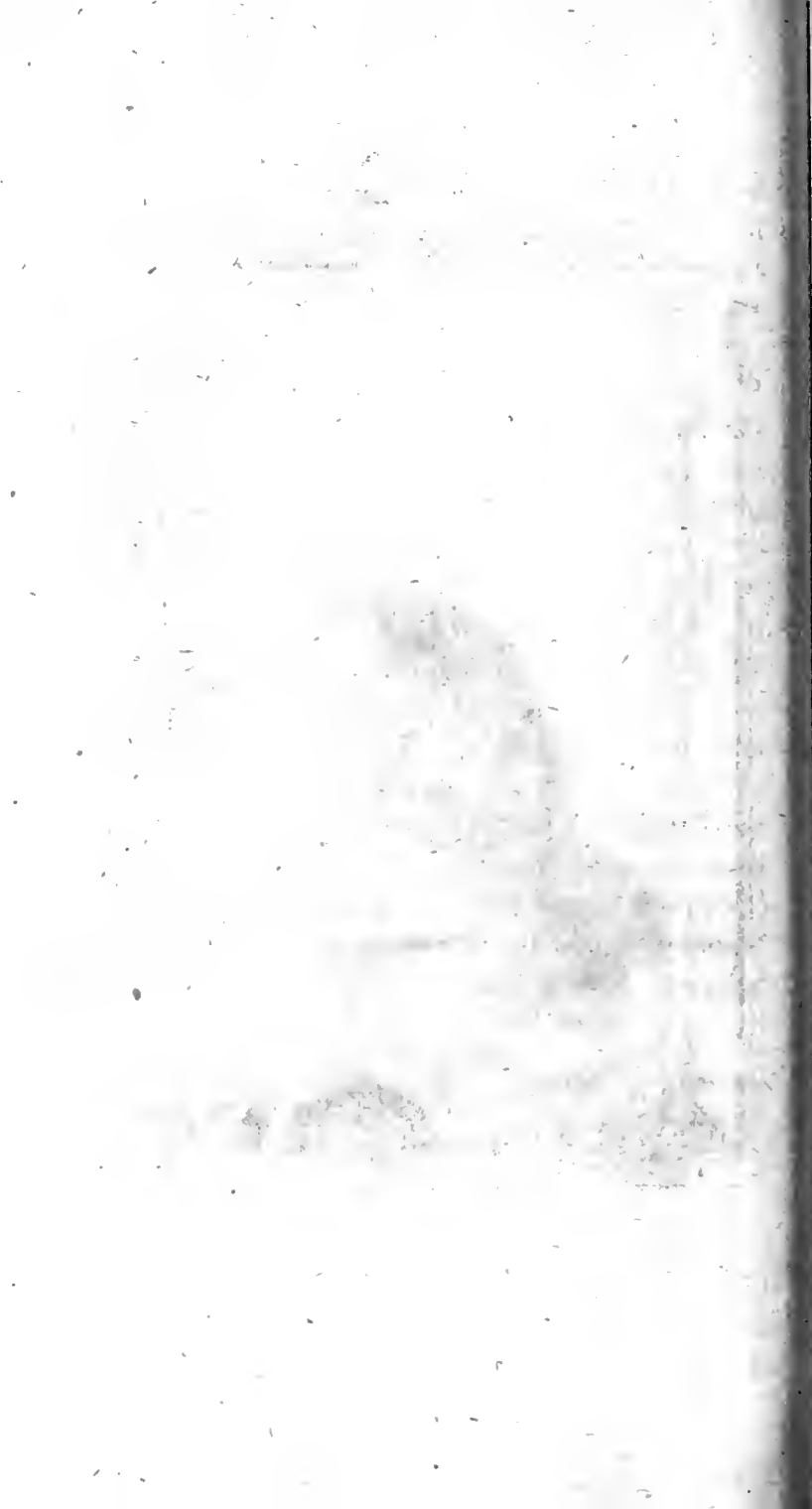
*Distinctive characters of this Species.*

The mustache has cheek-pouches and callosities on the thighs. Its tail is much longer than the body and head, being nineteen or twenty inches in length. Its face is of a bluish black colour, with a large white mark which extends over the whole upper lip, which is naked, except a border of black hairs that surrounds the margins of both lips. Its body is short and squat. It has two tufts of bright yellow hair under the ears, and likewise a tuft of curled hair on the top of the head. The hair on the body is of a greenish ash-colour, and that on the breast and belly is of a whitish ash-colour. It walks on four feet ; and, from nose to tail, exceeds not eighteen inches in length. The female is subject to the menstrual flux.



*Al. Belli sculpit.*

MUSTAX.





## THE TALAPOIN\*.

**T**HOUGH the size of this monkey be small, its figure is beautiful. Its name seems to indicate that it comes from Siam, and the other eastern provinces of Asia. It is certain, however, that it is a native of the Old Continent, and exists not in the New; because it has cheek-pouches and callosities on the buttocks, neither of which characters belong to the sagouins or sapajous, the only American animals who can be compared to the monkeys. But, independent of the name, I am inclined to think that this monkey is more common in the East Indies than in Africa; because it is affirmed by voyagers, that most of the apes in this part of Asia are of a brownish green colour. ‘The apes of Guzarat are of a brownish green colour, and have long white beards and eye-brows. These animals, which the Banians,

L 3

‘ from

\* The Talapoin monkey, with a sharp nose, round head, large black naked ears; eyes and end of the nose, flesh-coloured; hair on the cheeks very long, and reflected towards the ears: On the chin a small beard; the colour of the whole upper part of the body, and the outside of the limbs, a mixture of dusky yellow and green; the lower part white tinged with yellow; the tail very long and slender, above, of an olive colour; beneath, cinereous; the paws black. Its length is about one foot, and that of the tail, one foot five inches; Pennant's *synops. of quad.* p. 115.

‘ from a religious principle, allow to multiply  
 ‘ without end, are so familiar, that numbers of  
 ‘ them perpetually enter the houses; and the  
 ‘ sellers of fruits and confections have much  
 ‘ difficulty in preserving their wares \*.’

M. Edwards has given a figure and description of a monkey, under the denomination of *the middle-sized black ape*, which seems to make a nearer approach to the talapoin than any other. I here add Edwards’s description †, and refer to the figure he has given, that the reader may compare the two animals. If the size and colour be excepted, they have such a resemblance to each other, that they may be regarded as species very nearly allied, if not varieties of the same. In this case, as we are not certain that  
 our

\* Hist. gen. des Voyages, tom. 10. p. 67.

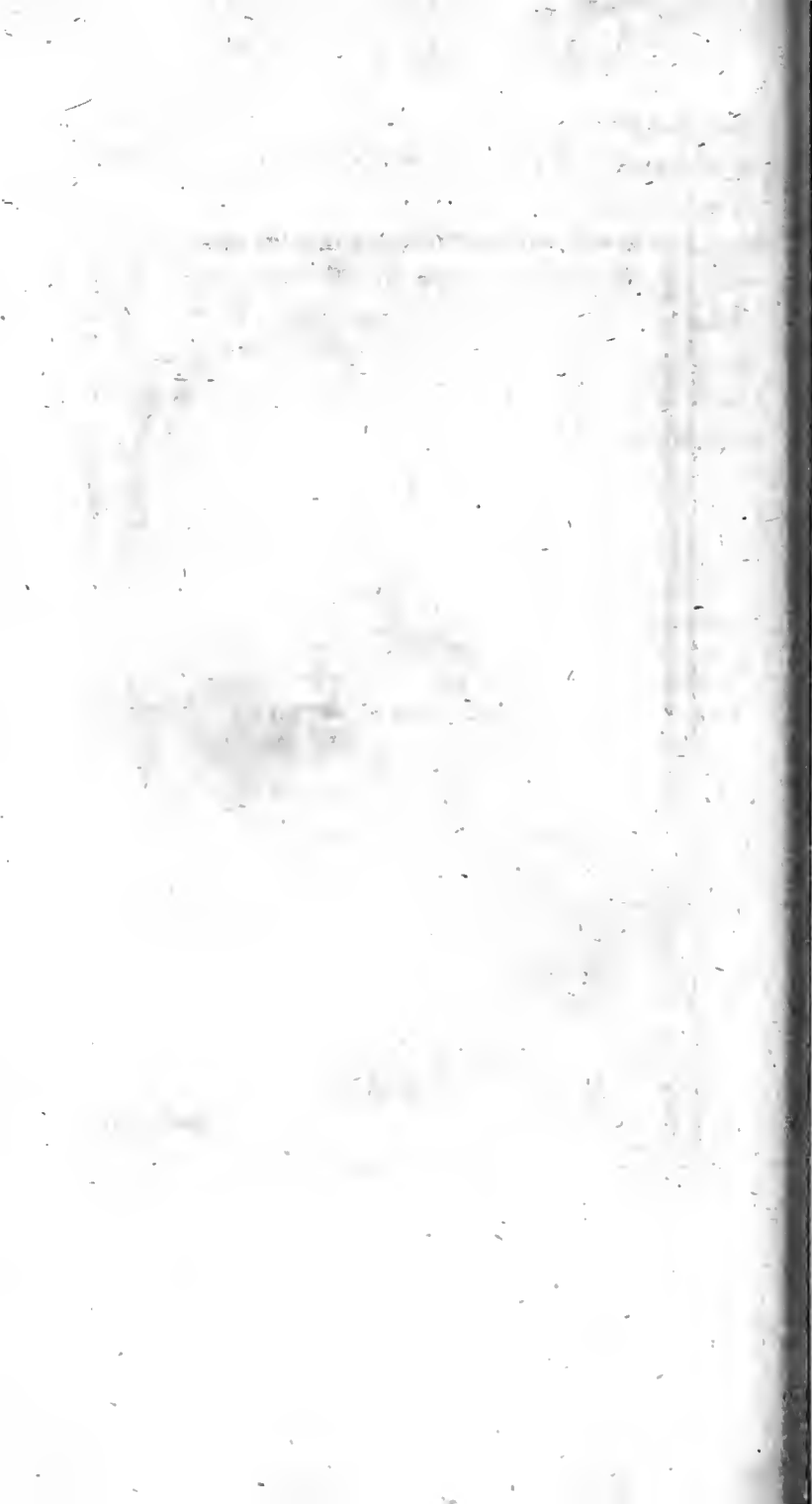
† This monkey was about the size of a large cat, of a gentle nature in respect to any one. He loved playing with a kitten, as most monkeys do. He was a little vicious, according to their nature, being a male.

His head was pretty round; the skin of the face of a tawny flesh-colour, thinly covered with black hair: The ears were shaped like the human. The eyes were of a reddish hazel colour, with black pupils. The hair was long above the eyes, and the eye-brows joined together; it was also long on the temples, which partly covered the ears. The head, back, arms, legs, and tail, were covered with pretty long, loose, dusky, black hair, not very harsh, or over soft. His breast, belly, &c. were almost bare of hair, of a dusky flesh colour, with two nipples on the breast. The four paws were all of them formed something like a human hand; they are covered with black soft skin, having little or no hair on them; the nails are flat; *Edwards’s Gleanings, p. 221.*



*A Bell's Sculp!*

TALAPOIN



our talapoin is a native of the East Indies, and as Edwards assures us, that his monkey came from Guiney, we must refer the talapoin to the same climate, or rather suppose that it is common to the southern regions of both Africa and Asia. It is probably the same species of black apes mentioned by Bosman, under the name of *Baurdmannetjes*, whose skin, he remarks, is an excellent fur\*.

The

\* In Guiney, there is a third species of ape, which is very beautiful, and generally exceeds not two feet in length. Its hair is extremely black, and more than an inch long, and its beard is white; from which circumstance the Dutch call it *Bourdmannetje*. Bonnets are made of their skins, and each fur sells at four crowns; *Voyage de Bosman*, p. 258.

## The DOUC\*, or Cochin-China Monkey.

THE Douc is the last of that class of animals which we have called *apes*, *baboons*, and *monkeys*. Without being precisely any of these three kinds, he participates of each. He is allied to the monkeys by the length of his tail, to the baboons by his size, and to the apes by his flat face. He seems, by a particular character, to form the shade between the monkey's and sapajous: In these two tribes of animals, the monkeys are distinguished by naked buttocks; and all the sapajous have these parts covered with hair: Of all the monkeys the douc alone has hair on the buttocks, like the sapajous. He resembles them also in the flatness of the muzzle. But, upon the whole, he has much more affinity to the

\* The name of this animal in Cochin-China. It is called *Sifac* in Madagascar.

Cochin-China monkey, with a short flattish face, bounded on each side by long hairs of a yellowish white colour; on the neck a collar of purplish brown; the lower part of the arms, thighs, and tail, are white; the upper part of the arms and thighs black; the back, belly, and sides, gray, tinged with yellow: Above the root of the tail is a spot of white, which extends, beneath, as far as the lower part of the belly and part of the thighs: The feet are black, and the buttocks covered with hair. This is a very large species, about four feet long, from the nose to the tail; but the tail not so long; *Perron's Synops. of quad. p. 119.*

*Cercopithecus cinereus*, genis longis pilis ex albo flavicantibus obsitis, torque ex castaneo purpurascente. Le grand singe de la Cochin-Chine; *Briffon. quad. p. 146.*

the monkeys than to the sapajous, from which he differs by his tail not being prehensile, and by other essential characters. Besides, the interval which separates the two tribes is immense; for the douc and all the monkeys belong to the Old Continent, and all the sapajous are natives of the New World. It may likewise be remarked, that, as the douc, like the monkeys, has a long tail, but has no callosities on the buttocks, he forms the shade between the orang-outangs and monkeys; as the gibbon does on another account, having no tail, like the orang-outangs, but, like the monkeys, having callosities on the buttocks. Independent of these general relations, the douc has peculiar characters which render him distinguishable, at first sight, from the apes, baboons, monkeys, and sapajous. His robe, which is variegated with many colours, seems to indicate the ambiguity of his nature, and distinguishes his species in a conspicuous manner. Round his neck there is a collar of a purplish blue colour. A white beard surrounds his cheeks. His lips are black, and he has a black ring round his eyes. His face and ears are red, the top of his head and body gray, the breast and belly yellow. His legs are white below and black above. His tail is white, with a large spot of the same colour on his loins. The feet are black, with several shades of different colours.

This

This animal, which I was assured came from Cochin-China, is likewise found in Madagascar; and it is the same with what Flacourt mentions, under the name of *Sifac*, in the following terms: ‘ In Madagascar, there is another species of white monkey, with a tawny collar, which frequently walks on the two hind legs. It has a white tail, and two tawny spots on the flanks. It is larger than the *vari* (maucauco), and smaller than the *varicoffi* (vari). This species is called *Sifac*, and feeds upon beans. It is very frequent about Andrivoura, Dambourlomb, and Ranafoulchy\*. The tawny collar, the white tail, and the spots on the flanks, indicate, in the clearest manner, that the *sifac* of Madagascar is the same species with the *douc* of Cochin-China.

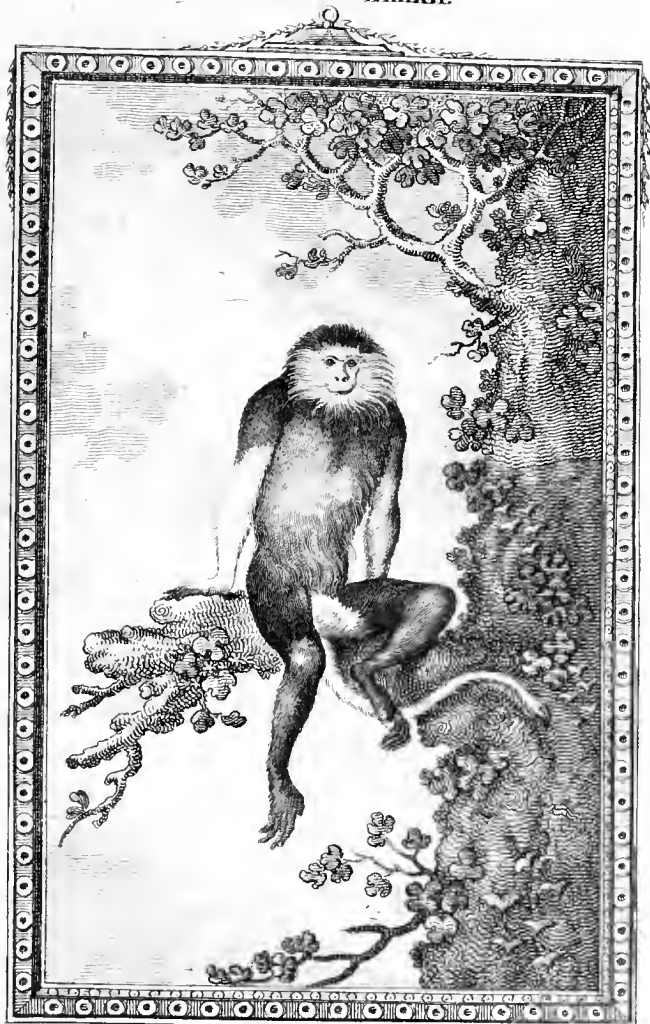
Travellers assure us, that, in the stomachs of the large apes in the southern provinces of Asia, bezoars are found of a superior quality to those of the goats and gazelles. These large apes are the ouanderou and the *douc*; and, of course, to them the production of the bezoars must be referred. It is alledged, that the bezoars of the ape are always round, while the other kinds are of different figures †.

*Disinclinive*

\* Voyage de Flacourt, p. 153.

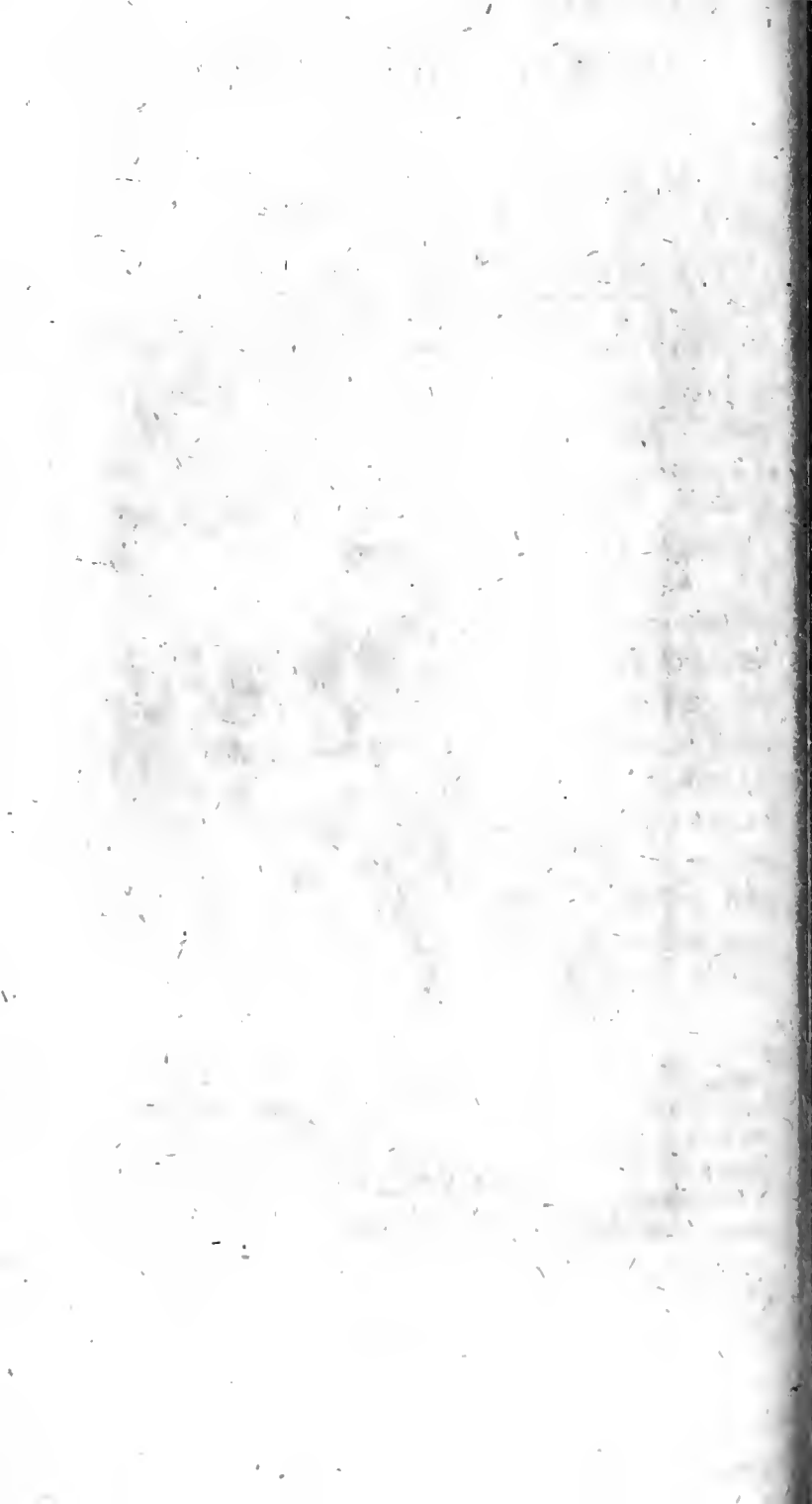
† As the apes, as well as the goats, eat the buds of certain shrubs, bezoar stones are produced in their bellies. They are often found in the excrements which they discharge when flying





*A. Bell sculp.*

DOUC.



*Distinctive Characters of this Species.*

The douc has no callosities on the buttocks, but is every where covered with hair. His tail is not so long as his body and head. His face is covered with a reddish down. The ears are naked, and of the same colour with the face. The lips, as well as the orbits of the eyes, are brown. The colours of the hair are vivid and various. He has a purplish brown collar round his neck. He has white on his front, head, body, arms, legs, &c. and a kind of yellowish white beard. The top of the front and the upper part of the arms, are black. The under parts of the body are of a cinereous gray and a whitish yellow colour. The tail and under part of the loins are white. He walks as often on two as on four feet. When erect, he is three and a half or four feet high. It is uncertain whether the females of this species be subject to the menstrual discharge.

The

flying from danger. These stones are dearer and more esteemed than any other kind: They are likewise round, and have more powerful virtues. One grain of this bezoar has been found to have an equal effect with two of that produced by the goats; *Descript. Hist. de Macacar, p 51. Nota.* From comparing this passage with that of Knox, related in the article *ouanderou*, it appears, that the ouanderous feed upon the buds of trees, and, of course, most commonly produce bezoars.

## The SAPAJOUS\* and the SAGOINS †.

**W**E now pass from the Old Continent to the New. All the four-handed animals formerly described, and which were comprehended under the generic names of *apes*, *baboons*, and *monkeys*, belong exclusively to the Old Continent; and all the rest, whose history we are about to relate, are found in the New World only. We first distinguish them by the two generic names *sapajous* and *sagoins*. The feet of both are constructed nearly in the same manner with those of the apes, baboons, and monkeys. But they differ from the apes by having tails. They differ from the baboons by the want of cheek-pouches and callosities on their buttocks. In fine, they differ from the apes, baboons, and monkeys, by having the portion between their nostrils very broad and thick, and the apertures placed to a side and not under the nose. Hence the sapajous and sagoins differ not only specifically but generically from the apes, baboons,

\* *Sapajou*, a word derived from *cayouassou*, the name of these animals in Brasil, and which is pronounced *sajouassou*.

† *Sagoin*, a word derived from *agui*, which is pronounced *sagui*, and is the name of these animals in Brasil.

baboons, and monkeys. When compared with each other, we likewise find that they differ in generic characters; for all the sapajous have prehensile tails, which are so constructed that the animals can use them as fingers to lay hold of objects. This under part of the tail, which they fold, extend, curl up, or unfold at pleasure, and by the extremity of which they suspend themselves on the branches of trees, is generally deprived of hair, and covered with a smooth skin. The tails of all the sagoins, on the contrary, are proportionally longer than those of the sapajous, and are straight, flaccid, and entirely covered with hair; so that they can neither use the tail in laying hold of objects, nor in suspending themselves. This difference alone is sufficient to distinguish a sapajou from a sagoin.

We know eight sapajous, which may be reduced to five species: 1. The *ouarine* or *gouariba* of Brasil. This sapajou is as large as a fox, and differs from the *alouate* of Cayenne in colour only. The hair of the ouarine is black, and that of the alouate is reddish; and, as they resemble each other in every other respect, I consider them as belonging to the same species. 2. The *coaita*, which is black like the ouarine, but not so large. The *exquima* seems to be a variety of this species. 3. The *sajou*, or *sapajou* properly so called, is small, of a brown colour, and

and commonly known by the name of the capuchin monkey. Of this species there is a variety, which we shall call the *gray fajou*, to distinguish it from the *brown fajou*. 4. The *sai*, which some travellers have called the *weeper*, is somewhat larger than the fajou, and has a broader muzzle. There are two kinds, which differ in colour only, the one being reddish brown, and the other whitish red. 5. The *saimiri*, which is commonly called the *orange monkey*. It is the smallest and most beautiful of the sapajous.

We are acquainted with six species of sagoins :  
 1. The *saki*, which is the largest, and whose tail is covered with hair so long and bushy, that it has been called the *fox-tailed monkey*. There seems to be a variety in this species. I have seen two, both of which appeared to be adults ; but the one was almost twice as large as the other. 2. The *tamarin* is generally black, with the four feet yellow. But they vary in colour ; for I have seen some of them brown, and spotted with yellow. 3. The *ouistiti*, which is remarkable for large tufts of hair round its face, and an annulated tail. 4. The *marikina*, which has a mane round the neck, and bushy hair, like the lion, at the end of the tail. From this circumstance it has received the appellation of the *lion-monkey*. 5. The *pinche*, whose face is of a beautiful black colour, with hair which descends from

from the top and each side of the head, in the form of long smooth tresses. 6. The *mico* is the most beautiful of the sagoins. Its hair is of a silver white colour, and its face is as red as vermilion.

We proceed to the history and description of each of these sapajous and sagoins, most of which have hitherto been unknown.

The

## The OUARINE \* and ALOUATE †.

**T**HE Ouarine and Alouate are the largest four-handed animals in the New Continent. In size they much exceed the largest monkeys, and approach to the magnitude of baboons.

\* Ouarine, the name of this animal at Maragnon.

The preacher monkey, with black shining eyes, short round ears, and a round beard under the chin and throat. The hairs on the body are of a shining black, long, yet lie so close on each other, that the animal appears quite smooth. The feet and end of the tail are brown. The tail is very long, and always twined at the end. It is of the size of a fox; *Pennant's synopsis of quad. p. 122.*

The monkeys called *ouarines* are all black, and of the size of large dogs. They cry so loud as to be heard at the distance of a league; *Miff. du P. Abbeville, p. 152.*

Guariba; *M. regr. Brasil. p. 226. Raii Synopsis. quad. p. 153.*

Aquiqui; *De Lact, p. 486. Grew's Mus. p. 133.*

Howling baboons; Guariba; *Bancroft's Guiana, p. 153.*

*Simia Beelzebub, caudata, barbata, nigra, cauda prehensili, extremo pedibusque fuscis; Linn. Syst. Nat. p. 37.*

*Cercopithecus niger, pedibus fuscis; Brisson. quad. p. 137.*

† Alouate, *alouata* at Cayenne, is only a variety of the ouarine. It is of a ferruginous or reddish bay colour; and the Indians call it the *king* of the monkeys.

*Cercopithecus barbatus maximus, ferruginosus, stentorosus. Alouata. Singe rouge; Barrère, Hist. Franc. Equin. p. 150.*

*Cercopithecus barbatus saturate rufus; Brisson. quad. p. 147.*

*Simia feniculus, caudata, barbata, rufa, cauda prehensili; Linn. Syst. Nat. p. 37.*

Arabata; *Gumilla Orenoque, tom. 2. p. 8. Bancroft's Guiana, p. 135.*



baboons. They have prehensile tails, and consequently belong to the family of sapajous, in which they hold a distinguished rank, not only by their stature, but also by their voice, which resounds like a drum, and is heard at a great distance. Marcgrave relates \*, ‘ That, every morning and evening, the ouarines assemble in the woods; that one of them takes a more elevated station, and gives a signal with his hand for the others to sit around and listen to him; that, when he perceives them to be all seated, he begins a discourse, in a tone so loud and rapid as to be heard at a great distance; and a person would be led to think that the whole were crying together; that all the rest, however, keep the most profound silence; that, when he stops, he gives a signal with his hand for the others to reply; that, in an instant, the whole cry together, till he commands silence by another signal, which they obey in a moment; that the first resumes his discourse or song; and that, after hearing him attentively for a considerable time, the assembly breaks up.’ These facts, which Marcgrave says he has often witnessed, may perhaps be exaggerated, and seasoned a little with the marvellous: The whole may be founded on the terrible noise made by these animals. They have a kind of ossaceous drum in their throat, in the concavity of which the sound is augmented, multiplied, and

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makes

\* Marcgrav. Hist. Bras. p. 226.

makes a howling noise. Hence these sapaious have been distinguished from all others by the name of *howlers*. We have never seen the ouarine, but have the skin of an alouate, and likewise a dried foetus of the same species, in which the bone of the throat, the instrument of the great noise he makes, is already perceptible \*. According to Marcgrave, the ouarine has a large square face, black and brilliant eyes, short, roundish ears, and a tail naked at the extremity, which adheres firmly to every thing it can embrace. The hair on the whole body is black, long, smooth and lustrous; that on the chin and throat is longer, and forms a kind of round beard; and that on the hands, feet, and part of the tail, is brown. The female is of the same colour with the male, and differs from him only by being smaller. The females carry their young on their back, and leap with them from branch to branch, and from tree to tree. The young embrace with their arms and hands the narrowest part of the mother's body, and remain firmly fixed as long as she is in motion. Besides,

\* The alouate monkey is a savage animal, of a reddish bay colour, very large, and, by means of the singular structure of the os hyoides, makes a terrible rattling noise, which is heard at a great distance; *Barrère, Hist. Franc. Equin. p. 150.*—In the island of St. George, under the Tropic, and about two leagues from the continent of America, there are monkeys as large as calves, which make such a strange noise, that people who are not accustomed to it think the mountains are falling.—They are exceedingly wild; *Voyage de Genti, tom. 1. p. 15.*

fides, these animals are so wild and mischievous, that they can neither be conquered nor tamed. They bite cruelly; and, though not carnivorous, they fail not to excite terror by their frightful voice, and their ferocious aspect. As they feed only upon fruits, pot-herbs, grain, and some insects, their flesh is not bad eating \*. ‘ The hunters,’ Oexmelin remarks, ‘ bring home in the evening the monkeys they kill in the country of Cape Gracias-a-Dio. They roast one part of these monkeys, and boil the other: The flesh is good, and resembles that of the hare; M 2 but

\* Monkeys are the most common game, and the most agreeable to the taste of the Amazon Indians.—Some of them are as large as a greyhound; *Voyage sur la rivière de l'Amazon, par M. de la Condamine, p. 164*—Cayenné is the country of monkeys.—When the reluctance at eating them is once overcome, it is certain that their flesh is very good. It is white, and, though generally not overcharged with fat, it fails not to be tender, delicate, and well tasted. Fine soup is made of their heads, which are served up like boiled capon; *Voyage de D. Suard, tom. 3. p. 311. et 338.*—There are monkeys in Cayenne of the size of large dogs, and of a reddish colour. They are called *howlers*; because, when in troops, they make a noise like a flock of hogs, fighting. They inspire terror, and have very large mouths. I believe they are ferocious. When the Savages shoot them with arrows, they extract the arrow out of their bodies with their hands, like a human creature. The flesh of the howlers is very good, and resembles mutton. One of them is a meal to six persons. They have a horn in their throat, which renders their cries hideous; *Voyage de Binet, p. 341.*—The Achagua savages along the river Oronoko are fond of the yellow monkeys called *arabais*, which make an insupportable noise every morning and evening; *Hist. de l'Oronoko, par Camille, p. 8.*

‘ but it is sweetish, and requires a great deal of  
‘ salt in dressing. The fat is very good, and  
‘ as yellow as that of a capon. We lived upon  
‘ these animals during all the time we remained  
‘ there, because we could procure no other food,  
‘ and the hunters supplied us daily with as many  
‘ as we could eat. I went to see this species of  
‘ hunting, and was surpris’d at the sagacity of  
‘ these animals, not only in distinguishing par-  
‘ ticularly those who make war against them,  
‘ but, when attacked, in defending themselves,  
‘ and providing for their own safety. When  
‘ we approach’d, they all assembled together,  
‘ utter’d loud and frightful cries, and threw at  
‘ us dried branches which they broke off from  
‘ the trees. Some of them voided their excre-  
‘ ments in their hands, and threw them at our  
‘ heads. I likewise remark’d that they never  
‘ abandoned one another ; that they leapt from  
‘ tree to tree with incredible agility ; and that  
‘ they flung themselves headlong from branch  
‘ to branch, without ever falling to the ground ;  
‘ because, before reaching the earth, they always  
‘ caught hold of a branch either with their hands  
‘ or tail ; so that, if not shot dead at once, they  
‘ could not be laid hold of ; for, even when  
‘ mortally wounded, they remain fix’d to the  
‘ trees where they often die, and fall not till  
‘ they are corrupted. More than four days af-  
‘ ter death, I have seen them firmly fix’d to the  
‘ trees ; and fifteen or sixteen of them are fre-  
‘ quently

'quently shot before three or four of them can  
 'be obtained. What is singular, as soon as one  
 'is wounded, the rest collect about him, and  
 'put their fingers into the wound, as if they  
 'meant to sound it; and when much blood is  
 'discharged, some of them keep the wound shut,  
 'while others make a mass of leaves, and dexte-  
 'rously stop up the aperture. This operation I  
 'have often observed with much admiration.  
 'The females bring forth but one young, which  
 'they carry in the same manner as the Negresses  
 'do their children. The young monkey em-  
 'braces its mother's neck with the two fore-feet,  
 'and with the two hind it lays hold of the mid-  
 'dle of her back. When she wants to give it  
 'suck, she takes it in her paws, and presents the  
 'breast to it, like a woman . . . There is no o-  
 'ther method of obtaining the young but by  
 'killing the mother; for she never abandons it.  
 'When she is killed, it falls from her, and may  
 'then be seized. When these animals are em-  
 'barrassed, they assist each other in passing a  
 'brook, or from one tree to another. . . . Their  
 'cries are heard at the distance of more than a  
 'league \*.'

Most of these facts are confirmed by Dam-

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pier :

\* Hist. des Aventuriers. par Caxmelin, tom. 2. p. 251

pier †: He assures us, however, that the females generally produce two young, one of which the mother

† The monkeys found in the neighbourhood of the Bay of Campeachy are the ugliest I ever saw. They are much bigger than a hare, and have great tails, about two feet and a half long. The under side of their tails is all bare, with a black hard skin; but the upper side, and all the body, is covered with coarse, long, black, staring hair. These creatures keep together 20 or 30 in a company, and ramble over the woods, leaping from tree to tree. If they meet with a single person, they will threaten to devour him. When I have been alone, I have been afraid to shoot them, especially the first time I met them. They were a great company dancing from tree to tree, over my head, chattering and making a terrible noise, and a great many grim faces, and shewing antick gestures. Some broke down dry sticks and threw at me; others scattered their urine and dung about my ears; at last, one bigger than the rest, came to a small limb just over my head, and leaping directly at me, made me start back; but the monkey caught hold of the bough with the tip of his tail, and there continued swinging to and fro, and making mouths at me.—At last I past on, they still keeping me company, with the like menacing postures, till I came to our huts. The tails of these monkeys are as good to them as one of their hands; and they will hold as fast by them. If two or more of us were together, they would hasten from us. The females with their young ones are much troubled to leap after the males; for they have commonly two: One she carries under one of her arms; the other sits on her back, and clasps her two fore paws about its neck. These monkeys are the most sullen I ever met with, for all the art we could use would never tame them. It is a hard matter to shoot one of them, so as to take it, for if it gets hold with its claws or tail, it will not fall as long as one breath of life remains. After I have shot at one and broke a leg or an arm, I have pitied the poor creature to see it look and handle the wounded limb, and turn it about from side to side. These monkeys are very rarely, or (as some say) never on the ground; *Dampier, vol. 2. part 2. p. 60.*

mother carries between her arms, and the other on her back. In general, the sapajous, even of the smallest species, are not very prolific; and it is probable that the largest produce not above one or two at a time.

*Distinctive characters of this species.*

The ouarine has the apertures of the nostrils placed at a side, and not under the nose; the partition of the nostrils is very thick. He has neither cheek-pouches, nor callosities on the buttocks, which are covered with hair, like the rest of the body. He has a long, prehensile tail, black, long hair, and a large concave bone in his throat. He is of the size of a greyhound; and the long hair under his neck forms a kind of round beard. He generally walks on four feet.

The alouate has the same characters with the ouarine, and only differs from him by having a larger beard, and the hair of a reddish brown colour. I know not whether the females of these species be subject to the menses: From analogy, I should presume that they are not, having generally found, that the apes, baboons, and monkeys with naked buttocks, are alone subject to this evacuation.

The

## The COAITA\* and EXQUIMA †,

**N**EXT to the ouarine and alouate, the coaita is the largest of the sapajous. I saw one of them at the palace of the Duke of Bouillon,

\* Four-fingered monkey, with a long flat face, of a swarthy flesh colour; eyes sunk in the head; ears like the human; limbs of a great length, and uncommonly slender; hair black, long, and rough; only four fingers on the hand, being quite destitute of a thumb; five toes on the feet; nails flat; tail long, and naked below, near the end; body slender; about a foot and a half long; tail near two feet, and so prehensile as to serve every purpose of a hand.

*Coaita*, or *quaita*, the name of this animal in Guiana.

*Cercopithecus major niger*, faciem humanam referens. *Quaita*; *Barrère Hist. nat. de la Franc. Equin.* p. 150.

*Quato*; *Bancroft's Guiana*, p. 131.

*Cercopithecus* in pedibus anterioribus pollice carens; cauda inferius versus apicem pilis destituta; *Le Belzebub*; *Briffon. quad.* p. 150.

*Simia paniscus*, caudata, imberbis, atra, cauda prehensili, et apicem subtus nuda; *Lin. Syst. nat.* p. 37.

Spider monkey; *Edwards's Gleanings*, vol. 3. p. 222.

*Simia fusca major*, palmis tetradactylis, cauda prehensili, ad apicem subtus nuda; the four-fingered monkey; *Brown's Hist. of Jamaica*, chap. 5. sect. 5.

† Spotted monkey, with a long white beard; colour of the upper parts of the body reddish, as if they had been singed, marked with white specks; the belly and chin whitish; tail very long: Is a species of a middle size.

*Cercopithecus Barbatus Guineensis*, *Exquima*; *Marcgrav. Hist. Nat. Brasil.* p. 227. *Raii Syn. quad.* p. 156.

*Cercopithecus barbatus fuscus*, punctis albis interspersis, barba alba; *Briffon. quad.* p. 147. No. 23 p. 148. No. 24.

*Simia Diana*, caudata, barbata, fronte barbaque fastigiata; *Lin. Syst. nat.* p. 38.



lon, where, by its familiarity, and even its caresses, it procured the affection of those to whose charge it was committed. But, notwithstanding all the care and attention it received, it was unable to resist the cold of the winter 1764. It died, to the regret of its master, who was so obliging as to send it to me, to be placed in the Royal Cabinet. I saw another in the house of the Marquis de Montmirail. This was a male, and the former a female. Both were equally tractable and well tamed. Hence this sapajou, by its mild and docile disposition, differs much from the ouarine and alouate, who are so wild that no art can tame them. Neither has it, like them, an osseous pouch in the throat. Like the ouarine, its hair is black, but rough. The coaita likewise differs from all the other sapajous, by having only four fingers on his hands. By this character and his prehensile tail, he is easily distinguished from the monkeys, who have all five fingers, and a flaccid tail.

The animal called *exquima* by Marcgrave, is very nearly allied to the *coaita*, and is perhaps only a variety of that species. This author seems to have been deceived when he tells us, that the *exquima* is a native of Guiney and Congo. The figure he has given of it was alone sufficient to have convinced him of his error; for it represents this animal with a tail rolled up at the point, a character which belongs exclusively to the sapajous. Of course, Marcgrave's *exquima* is not

a monkey of Guiney, but a *sapajou* with a prehensile tail, which had been transported thither from Brasil. The name *exquima*, or *quima*, by abstracting the article *ex*, and which ought to be pronounced *quoima*, is not very different from *quoaita*, the manner in which several authors spell the name *coaita*. Hence every circumstance concurs in establishing Marcgrave's *exquima*, which he calls a Guiney monkey, to be a Brasilian *sapajou*, and a variety only of the *coaita*, which it resembles in disposition, size, colour, and the prehensile tail. The most remarkable difference is, that the *exquima* has whitish hair on the belly, and a white beard, two inches long, under the chin\*: Our *coaitas* have neither a beard nor white hair on the belly. But these differences seem not sufficient to constitute two distinct species; for we learn from the evidence of travellers, that some *coaitas* are black and others white, and some have beards and others no beards. 'There are,' says Dampier, 'great  
'droves of monkeys, some of them white, but  
'most of them black; some have beards, others  
'are

\* *Cercopithecus barbatus Guineensis*; in Congo vocatur *Exquima*; pilos habet fuscis, sed per totum dorsum quasi adustos seu ferrugineos; fuscis autem punctulatim inspersus color albus; venter albicat et mentum inferius; barbam quoque egregie albam habet, constantem capillis duos digitos longis et amplius pallis quasi ordinatim pexa fuisset; quando haec species irascitur, os ample diducendo et mandibulas celeriter movendo, exagitat hominem; egregie saltant, varios fructus comedunt; *Marcgr. Hist. nat. Brasil. p. 227. et 228.* Ube vide figuram.

are beardless. They are of a middle size, yet extraordinary fat at the dry season, when the fruits are ripe; and they are very good meat, for we ate of them very plentifully. The Indians were shy of eating them for a while; but they soon were persuaded to it, by seeing us feed on them so heartily. In the rainy season they have worms in their bowels. I have taken a handful of them out of one monkey we cut open; and some of them seven or eight feet long. They are a very waggish kind of monkey, and played a thousand antick tricks as we marched at any time through the woods, skipping from bough to bough, with the young ones hanging at the old ones backs, making faces at us, chattering, and, if they had opportunity, pissing down purposely on our heads. To pass from top to top of high trees, whose branches are a little too far asunder for their leaping, they will sometimes hang down by one another's tails in a chain; and swinging in that manner, the lowermost catches hold of a bough of the other tree, and draws up the rest of them\*. All these facts, even the worms in the intestines, correspond with our coaitas. M. Daubenton, in dissecting these animals, found a great number of worms, some of which were from twelve to thirteen inches long. It is obvious, therefore, that the exquima of Marcgrave is

a

\* Dampier's voyages, vol. 3. p. 330.

a sapajou of the same species, or, at least, of a species very nearly allied to that of the coaita.

We must likewise remark, that, if the animal mentioned by Linnaeus, under the name of *Diana* \*, is really, as he says, the *exquima* of Marcgrave, he has omitted the *prehensile tail*, which is the most essential character, and ought alone to determine whether this *diana* belongs to the genus of *sapajous* or to that of the *monkeys*, and, of course, whether it is found in the Old or the New Continent.

Independent of this variety, the characters of which are conspicuous, there are other varieties, though less remarkable, in the species of the coaita. That described by M. Brisson had whitish hair on all the under parts of the body. But those I have seen were entirely black, and had very few hairs on the inferior parts of the body, where the skin appeared, and was equally black with the hair. Of the two coaitas mentioned by Mr Edwards †, the one was black and the

\* *Diana simia caudata barbata, fronte barbaque fastigiata. Cercopithecus barbatus Guineensis, Marcgravii.*——Habitat in Guinea, magnitudo felis majoris; nigra punctis albidis. Dorsum postice ferrugineum, femor subtus helvola, gula pectusque alba, frons pilis erectis albis fastigiata, linea transversa in formam lunae crescentis, barba fastigiata nigra subtus alba insidens tuberi adiposo, linea alba ab ano ad genua ab exteriori latere femorum ducta. Ludibunda omnia dejicit, peregrinos nutitando salutatur, irata ore hiat maxillasque exagitat; vocata respondet *greck*; *Linn. Syst. nat. p. 38.*

† *Gleanings, p. 222.*

the other brown. On account of the length and slenderness of their legs and tail, they were called *spider monkeys*.

Some years ago, a coaita was sent me, under the denomination of *chamek*, which, I was told, came from the coast of Peru. I shall give a description of it in the margin\*, from which it will appear that this chamek of Peru, with the exception of a few varieties, is the same animal with the coaita of Guiana.

These sapajous are very dexterous and intelligent. They go in companies, and mutually warn and assist each other. It uses its tail as a fifth hand, and seems to employ this instrument more than either its hands or feet †. To balance  
this

\* This animal was brought from the coast of Bancet in Peru, when thirteen months old. It weighed about six pounds. The whole body was black. The skin of the face was naked, of a coarse grain, and of the colour of a Mulatto. The hair was coarse, and from two to three inches in length. The ears, which resembled those of man, were naked, and of the same colour with the face. The tail was one foot ten inches long, five inches thick at the base, and about one inch at the point. It was round, and garnished with hair above and below about thirteen inches from the origin, but naked below nine inches from the extremity, where the under part of it is flat and furrowed in the middle, and round above. This animal suspends itself by the tail, and likewise uses it as a fifth hand to lay hold of any thing it wants. Its length was thirteen inches from the point of the nose to the origin of the tail. It had only two paps, placed nearly under the armpits.

† This creature has no more than four fingers to each of its fore paws, but the top of the tail is smooth underneath, and on this it depends for its chief actions; for the creature  
holds

this advantage, Nature has deprived this animal of a thumb. We are assured that it seizes fishes with its tail ; which is by no means incredible ; for we have seen one of our coaitas lay hold in this manner of a squirrel, which had been put into its chamber as a companion. They have the address to break the shells of oysters, in order to eat them \*. It is certain, that, with a view to pass from one tree to another, whose branches are too distant for a leap, they form a chain, by hanging down †, linked to each other by their tails, and swinging in that manner till the lowest catches hold of a branch, and draws up the rest. They sometimes pass rivers by the same expedient.

holds every thing by it, and flings itself with the greatest ease from every tree and post by its means.—It is a native of the main continent ; and a part of the food of the Indians ; *Ruffel, Hist. of Jamaica, chap. 5. sect. 5.*

\* At the island of Gorgonia, on the coast of Peru, we took notice of several monkeys, who lived partly upon oysters, which they got out of the sea at low water. Their way was to take up an oyster, and lay it upon a stone, and with another stone to keep beating of it till they had broke the shell in pieces ; *Dampier's voyages, vol. 3. p. 382.*

† In travelling to Panama, I saw, at Capira, one of these monkeys leap from one tree to another, which was on the opposite side of the river. When they want to reach a place which they cannot accomplish by one leap, they link themselves to each other's tail, and by this means form a long chain. They then spring forward, and the first, being aided by the impulle of the rest, reaches the intended branch ; and, after fixing himself, he continues to assist the progress of the others till the whole attain their end ; *Hist. Nat. du Indes, par Joseph Acosta, p. 200.*

cient. The females bring forth but one or two young, which they always carry on their back. They eat fishes, worms, and insects; but fruits are their common food. When the fruits are ripe, they become very fat, and their flesh is then said to be excellent\*.

*Distinctive Characters of these Species.*

The coaita has neither cheek pouches nor callosities on the buttocks. He has a very long, prehensile tail. The partition of the nostrils is very thick, and their apertures are placed at a side, and not under the nose. He has only four fingers on his hands or fore feet. Both his hair and skin are black. His face is naked and tawny. His ears are also naked, and resemble those of man. He is about a foot and a half in length; and his tail is longer than the body and head together. He walks on four feet.

The exquima is nearly of the same size with the coaita, and has likewise a prehensile tail. But his colour, instead of being black, is variegated. The hairs on his back are black and yellow, and white on the throat and belly. He has, besides, a remarkable beard. These differences,

\* They are of a middle size, yet extraordinary fat at the dry season, when the fruits are ripe; and they are very good meat, for we ate of them very plentifully; *Dampier's voyages*, vol. 3. p. 330.

rences, however, are not sufficient to constitute two distinct species; especially as some coaitas are not entirely black, but are whitish on the throat and belly. The females of these two species are not subject to the periodical evacuation.

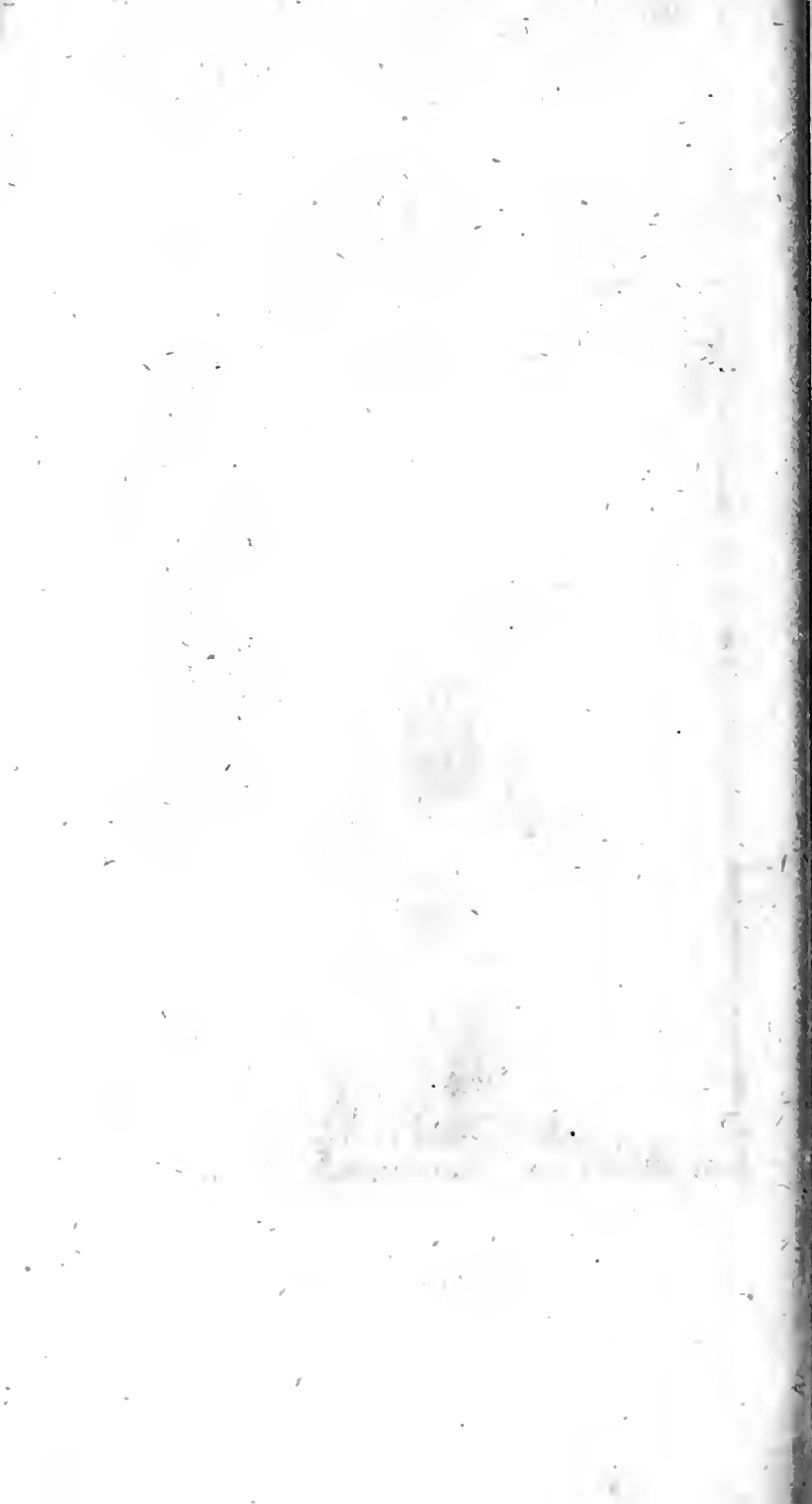
The





*A. Bell sculp.*

COAITA.



## The SAJOU \*, or Capuchin Monkey.

WE are acquainted with two varieties of this species, the *brown sajou*, or capuchin monkey; and the *gray sajou*, which differs from the brown in colour only. They are

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N

both

\* The capuchin monkey, with a round head, and a short flesh-coloured face, with a little down on it; hair on the fore head more or less high and erect in different subjects; top of the head black and dusky, hair on it pretty long; hind part of the neck, and middle of the back, covered with long dusky hairs; rest of the back and the limbs of a reddish brown; hands and feet covered with a large skin; tail longer than the head and body, and often carried over the shoulders; the hair on it very long, of a deep brown colour, and appears very bushy from beginning to end: It is a species that varies a little in colours, which induced Linnæus to form three species of this one; *Pennant's synopf. of quad. p. 126.*

*Sajou*, a word abridged from *Cayouassou* or *Sajouassou*, the name of these animals in Maragnon.

*Simia trepida, caudata, imberbis, capillitio arrecto, manibus pedibusque caeruleis, cauda prehensili villosa; Linn. syst. nat. p. 139.*

*Simia capucina, caudata, imberbis, fusca, cauda prehensili hirsuta, pileo artibusque nigris, natibus testis; Linn. syst. nat. p. 42.*

*Simia apella, caudata, imberbis, cauda subprehensili, corpore fusco, pedibus nigris, natibus testis; Ibid.*

*Cercopithecus fuscus, capitis vertice fusco; Brisson. quadr. p. 137.*

Bush-tailed monkey; *Edw. p. 312.*

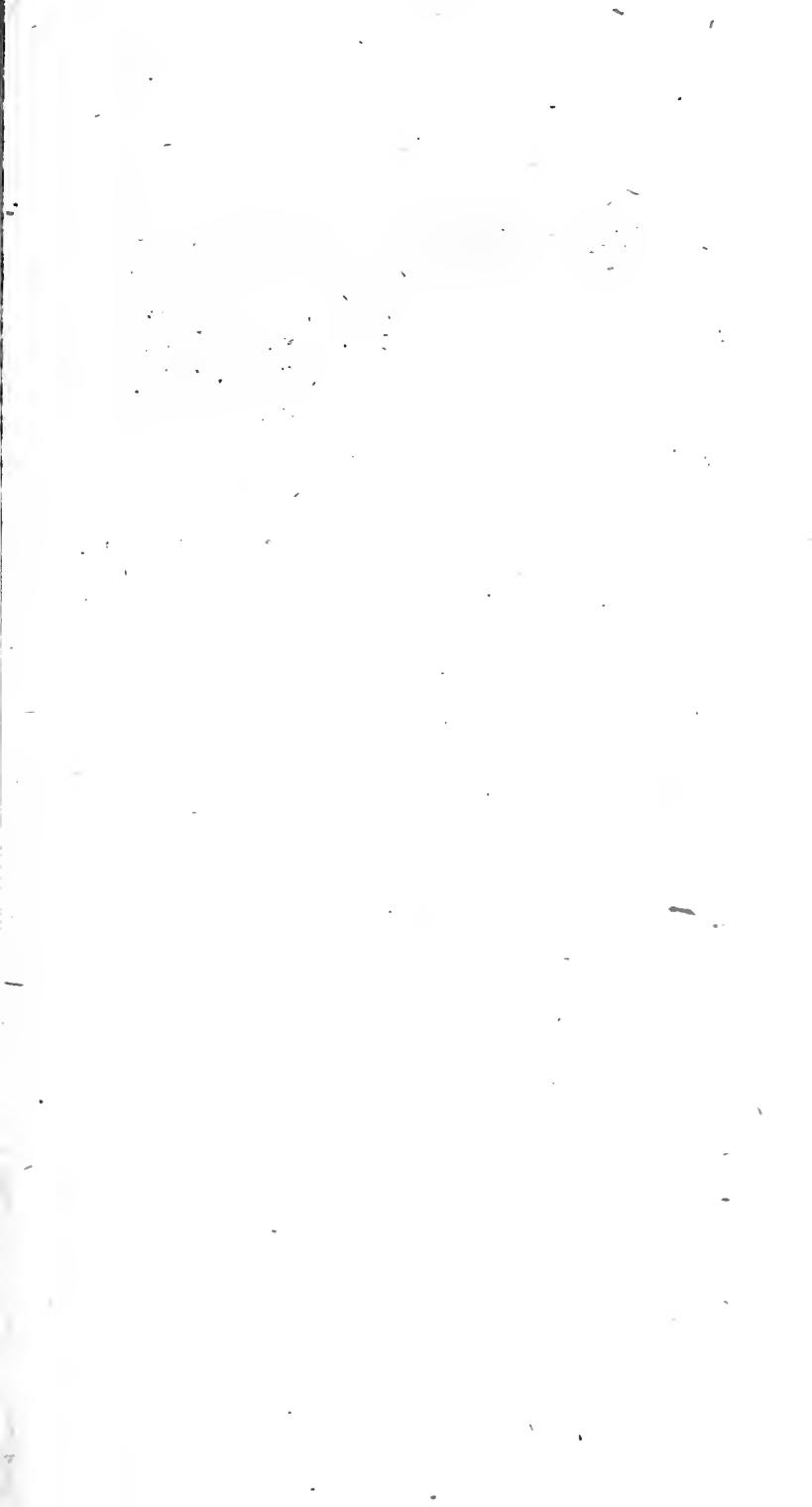
*Simiolus Ceylonicus; Seb. Mus. tom. 1. p. 77. tab. 48.* This animal is not found in Ceylon, but in America.

*Cayouassou; Miff. du P. d'Abbeville, p. 252.*

both of the same size, and have the same figure and dispositions. They are both very agile, and their nimbleness and dexterity are extremely amusing. We have had them alive, and, of all the sapajous, their constitution seems to be best adapted to our climate. If kept in a chamber during the winter, they live comfortably for several years. We can even give several examples of their producing in this country. Two young ones were brought forth in the M. de Pompadour's lodging at Versailles; one in the house of M. de Reaumur at Paris, and another in Mad. de Pourfel's in Gatinois \*. But, in this country, they never produced above one at a time, while, in their native climate, they often produce two. Besides, these sajous are very whimsical in their taste and affections. They are fond of particular persons, and discover the greatest aversion to others.

We

\* M. Sanches, formerly first physician to the court of Russia, communicated this last fact to me, in a letter from Mad. de Pourfel, of which the following is an extract: ' Bordeaux, ' Jan. 26. 1764. On the 13th of this month, the female ' sapajou brought forth a young one, whose head was almost ' as large as that of the mother. During two hours, she suffered great pain; and we were obliged to cut the belt by ' which she was fixed, otherwise she could not have brought ' forth. Nothing could be more beautiful than to see the ' father and mother occupied with their little one, which they ' teased incessantly, either by carrying it about, or by caressing it. *Fernambuco*, the name given to the male, because ' he was brought from that part of Brasil, loves his child to ' distraction. The father and mother carry it alternately; ' and, when it does not hold properly, they gave it a pretty ' severe bite.'





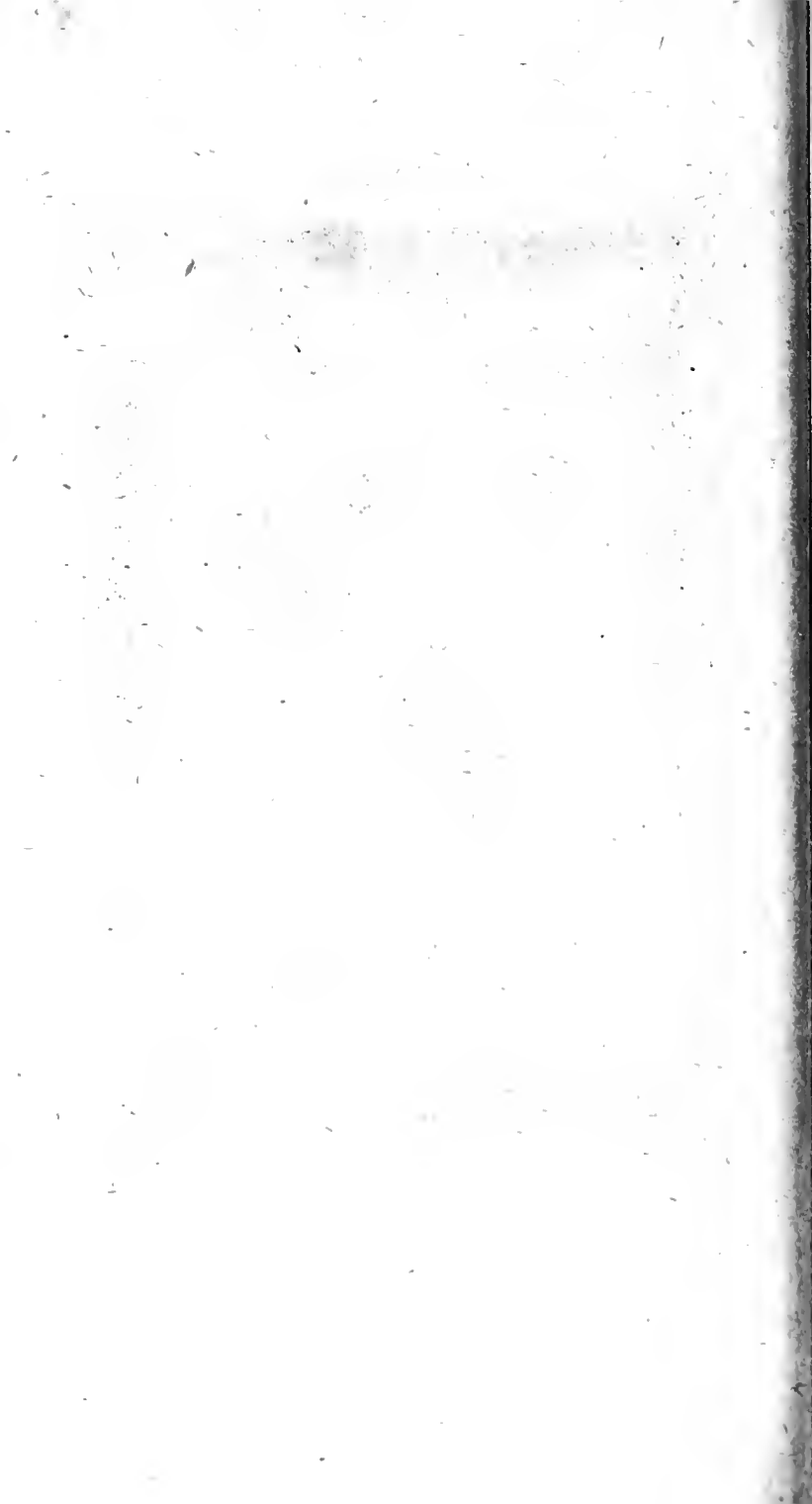
*A. Bell, sculp.*

BROWN CAPUCHIN MONKEY.



A. Bell's sculp.

GRAY CAPUCHIN MONKEY.





We remarked a singularity in these animals, which makes the females be often mistaken for the males. The clitoris is prominent, and appears to be as large as the penis of the male.

*Distinctive Characters of this Species.*

The fajous have neither cheek-pouches, nor callosities on their buttocks. Their face and ears are flesh-coloured, with a little down above. The partition of the nostrils is thick, and their apertures are placed at a side, and not under the nose. The eyes are chestnut coloured, and situated near each other. The tail is prehensile, naked below at the point, and very bushy everywhere else. In some, the hair is black and brown, both round the face, and upon all the upper parts of the body. In others, the hair round the face is gray, and of a brownish yellow on the body. The hands are always black and naked. From the point of the muzzle to the origin of the tail, they exceed not a foot in length. They walk on four feet. The females are not subject to the menses.

## The SAI\*, or WEEPER.

WE have seen two varieties of this species ; the first was of a blackish brown colour ; and the second, which I have called *Sai with a white throat*, has white hair on the breast, throat, and round the ears and cheeks. It differs from the first by having less hair on the face. But, in every other article, they perfectly resemble each other. Their dispositions, size, and figure, are the same. Travellers have mentioned these animals under the name of *weepers* † ; because they make a plaintive noise, and, when irritated, have the appearance of crying. Others have called them *musk monkeys*, because,

\* *Cay*, pronounced *Sai*, the Brazilian name of this animal.

Monkey with a round and flat face, with a reddish brown colour, very deformed ; the hair on the head and upper part of the body black, tinged with brown ; beneath, and on the limbs, tinged with red ; tail black, and much longer than the head and body : The young are excessively deformed ; their hair very long, and thinly dispersed ; *Pennant's synopsis of quad.* p. 127.

*Cercopithecus Brasiliensis secundus* ; *Clus. exot.* p. 372.

*Cay* ; *De Lact.* p. 486. *Raii syn. quad.* p. 155.

*Cercopithecus totus niger* ; *Briffon. quad.* p. 139.

† In the island of St George, two leagues distant from the continent of America, there are monkeys called *weepers*, because they imitate the cries of an infant ; *Voyage de la Gentil*, tom. 1. p. 15.

because, like the maucauco, they have a musky odour\*. Others have given them the name of *macaque* †, which they borrowed from the macaque of Guiney. But the macaques are monkeys with flaccid tails; while the former belong to the sapajous, because their tails are prehensile. The females have only two paps, and produce two young at a time. They are mild, docile, and so timid, that their common cry, which resembles that of a rat, becomes a kind of groaning when they are threatened with danger. In this country, they eat May-bugs and snails ‡ in preference to all other food. But, in Brasil, their native climate, they live chiefly on grains and wild fruits ||, which they gather from the trees, and rarely descend upon the earth.

## N 3

*Distinctive*

\* In the neighbourhood of the bay of All Saints, there are small monkeys, who are extremely ugly, and have a great scent of musk; *Dampier's voyages*.

† At the bay of All Saints, I saw two species of monkeys, the one called *sagouins*, and the other *macaques*. The sagouins are of the size of a squirrel. Some of them are gray, and others of a fine yellow colour. They are extremely beautiful. — The macaques are larger, and of a brown colour; They weep perpetually, &c.; *Voyages de de Genes, par Froger*, p. 150.

‡ All the monkeys of South America live upon fruits, flowers, and particular insects; *Hist. des Avanturiers, par Oexmelin, tom. 2. p. 256*.

|| The Cuis or Sais never remove from the top of a tree that bears fruit in a pod as large as our beans, which is their principal food. They assemble in troops, and particularly when it rains. It is pleasant to hear them chattering on the trees. The female produces but one at a time; and the young,

*Distinctive Characters of this Species.*

The saïs have neither cheek-pouches nor callosities on their buttocks. The partition of their nostrils is very thick, and the apertures are placed at a side, not under the nose. The face is round and flat, and the ears are almost naked. The tail is prehensile, and naked below toward its extremity. Upon the upper parts of the body, the hair is of a blackish brown colour, and on the inferior parts, of a pale yellow or dirty white. These animals exceed not fourteen inches in length ; and their tail is longer than both body and head. They walk on four feet. The females are not subjected to the menses.

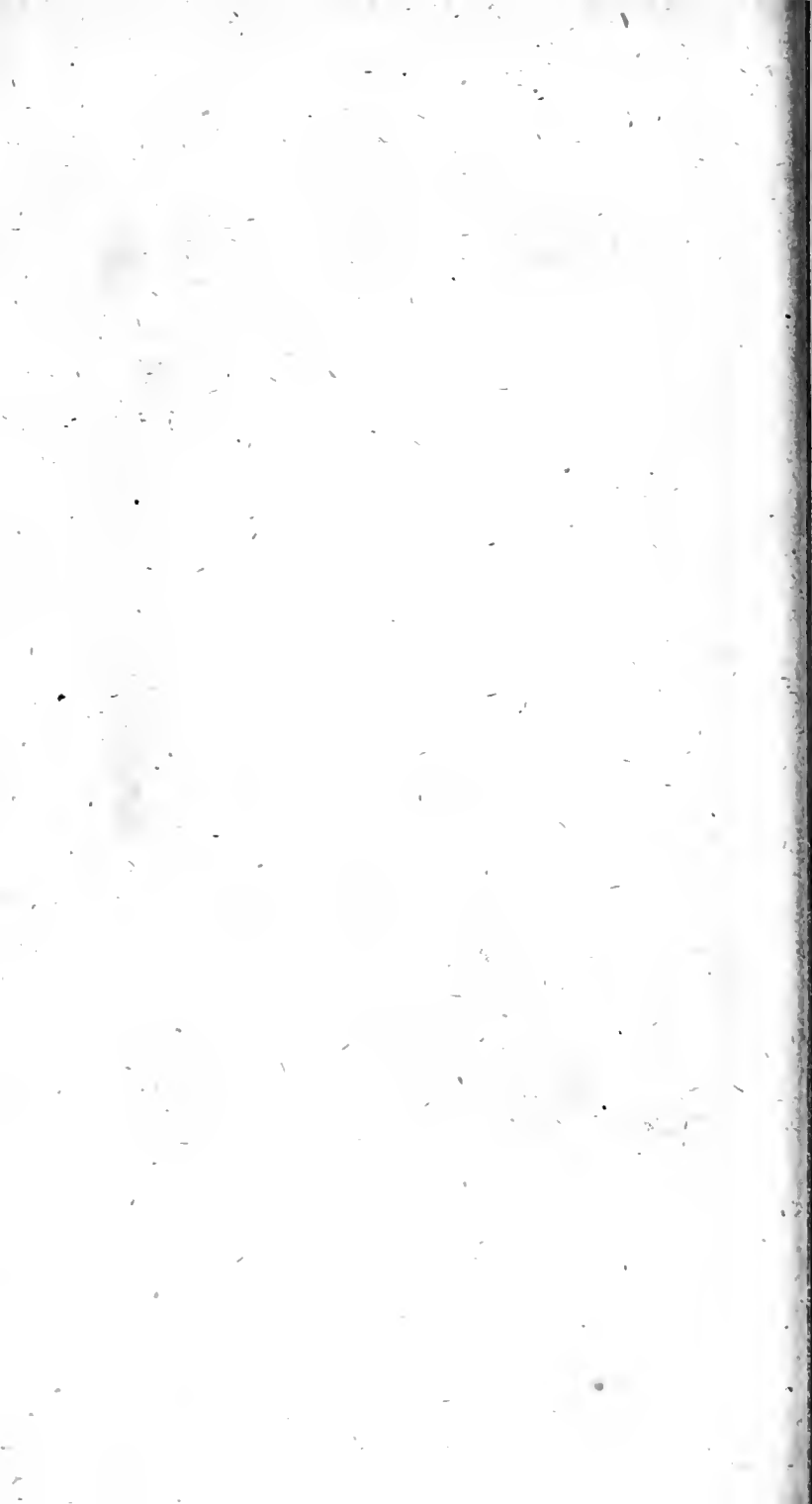
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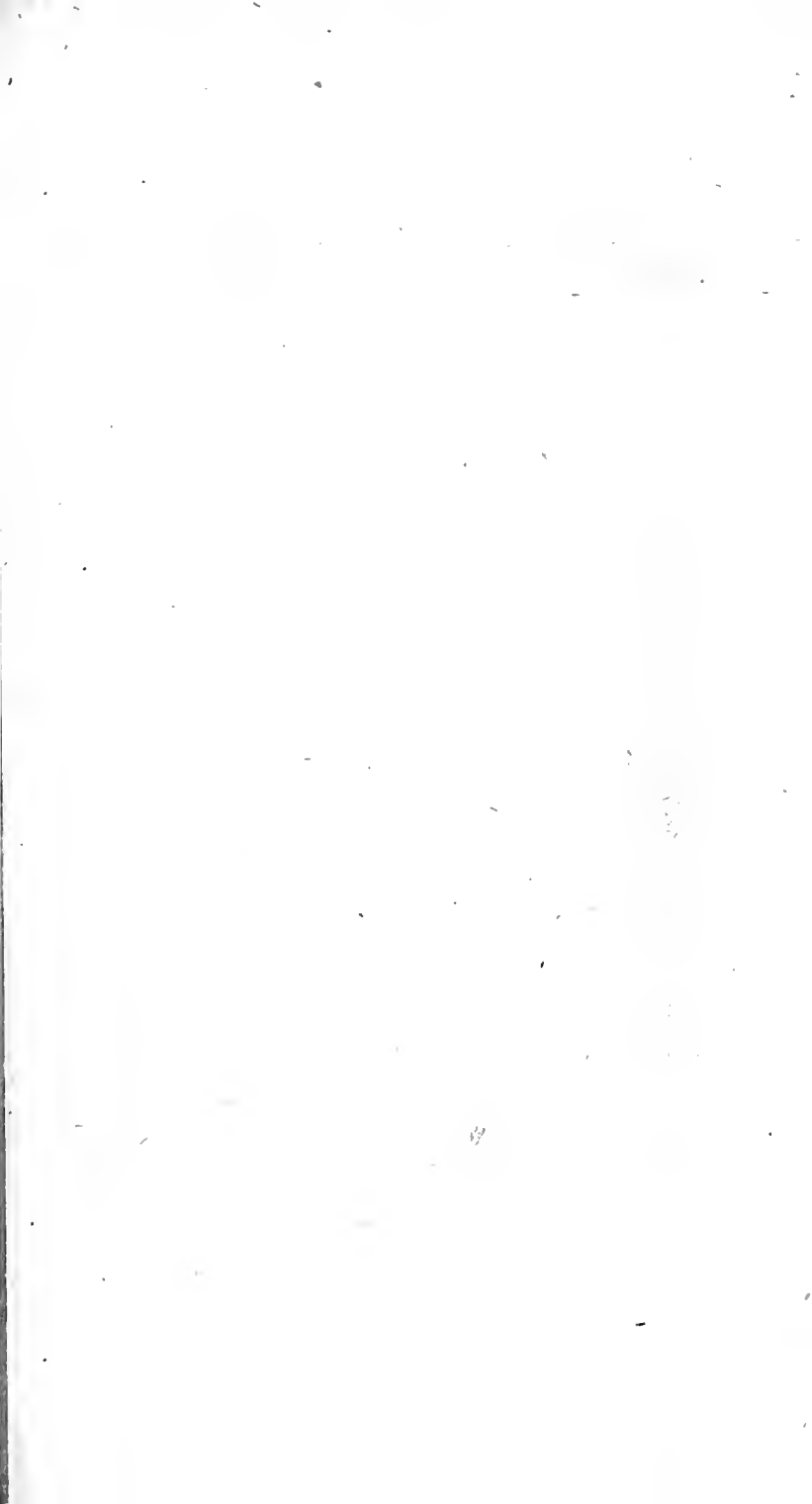
as soon as brought forth, holds firm by the neck of its mother or father. When pursued by the hunters, they save themselves by leaping from branch to branch, carrying their young on their backs. The savages, therefore, being unable to seize either the young or the old, are obliged to wound them with arrows ; after which they fall from the tops of the trees, either stunned or wounded. When cured of the wounds, and rendered somewhat tame, they are sold by the Savages ; for, when first taken, they are so ferocious, and bite so obstinately, that they quit not their hold till they be torn in pieces ; *Voyage de Ler), p. 164.*



*A. Bell's sculp.*

SAI or WEEPER.







*A Bellwasp's*

Sai with a WHITE THROAT



## The SAIMIRI\*, or Orange Monkey.

THE Saïmiri is commonly known by the name of the *golden, orange, or yellow sapajou*. It is common in Guiana; and therefore has received from some voyagers the appellation of the *Cayenne Sapajou*. From the gracefulness of its movements, the smallness of its size, the brilliant colour of its hair, the largeness and vivacity of its eyes, and its round visage, the saïmiri has uniformly been preferred to all the other sapajous: It is indeed the most beautiful of this tribe. But it is likewise the most

\* Orange monkey, with a round head, nose a little pointed, and the end of it dusky; orbits flesh-coloured; ears hairy; hair on the body short and fine, of a yellow and brown colour; but, in its native country, when in perfection, of a brilliant gold colour; the feet orange; nails of the hands flat, of the feet like claws; tail very long, and less useful for prehensile purposes than that of the rest; body of the size of a squirrel; *Pennant's Synops. of quad. p. 128.*

*Caymiri, or Saimiri*, the name of this animal in the country of Maragnon.

*Caitaia; Marcgr. p. 227. Raii synops. quad. p. 175.*

*Cercopithecus pilis ex fusco flavescente, et candicante variegatus, vestitus, pedibus ex flavo rufescens; Brisson. quad. p. 140.*

*Cercopithecus minor luteus; le sapajou jaune; Barrière, Franc. Equin. p. 151.*

*Simia sciurea, caudata, imberbis, occipite prominulo, unguibus quatuor plantarum subulatis, natibus testis; Linn. Syst. Nat. p. 43.*

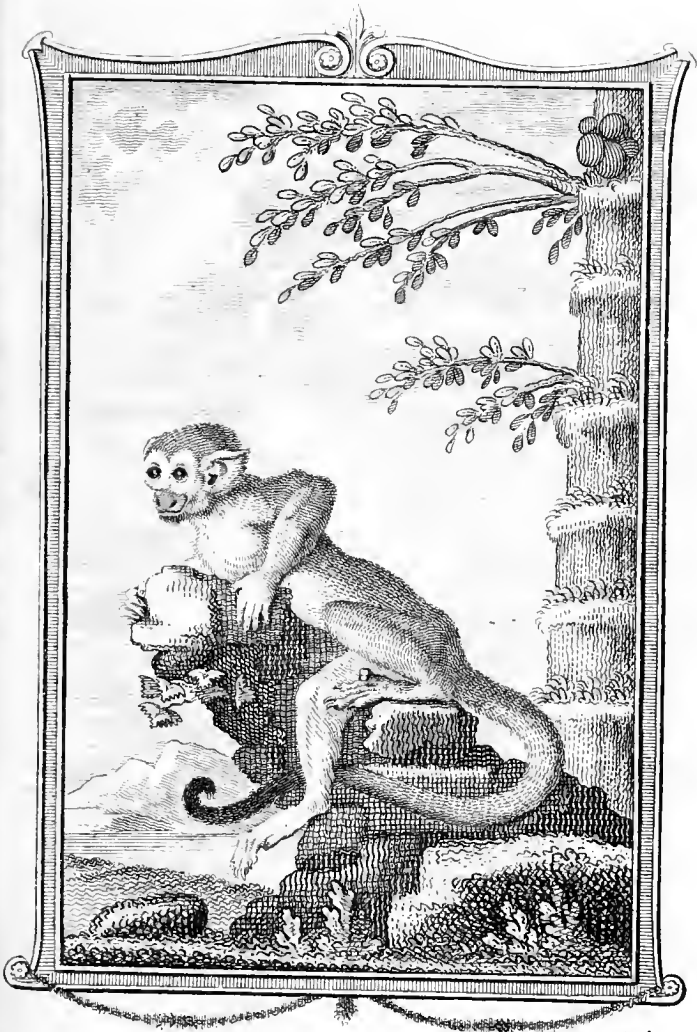
most delicate\*, and the most difficult to transport and preserve. From these characters, and particularly from that of the tail, which is only half-prehensile, and, though not so muscular as that of the sapajous, is not absolutely useless and flaccid, the saïmiri seems to form the shade between the sapajous and the sagoins.

*Distinctive Characters of this Species.*

The saïmiri has neither cheek-pouches nor callosities on the buttocks. The partition of his nostrils is thick, and their apertures are placed at a side, not under the nose. He may be said to have no fore-head. His hair is of a brilliant yellow colour; and he has two flesh-coloured rings round his eyes. His nose is elevated at the base, and flattened at the point. The mouth is small, the face is flat and naked; and the ears are garnished with hair, and a little pointed. The tail is half-prehensile, and longer than the body. From the point of the muzzle to the origin of the tail, he exceeds not ten or eleven inches in length. He stands with ease on his two hind legs; but he commonly walks on four. The female is not subject to the menes.

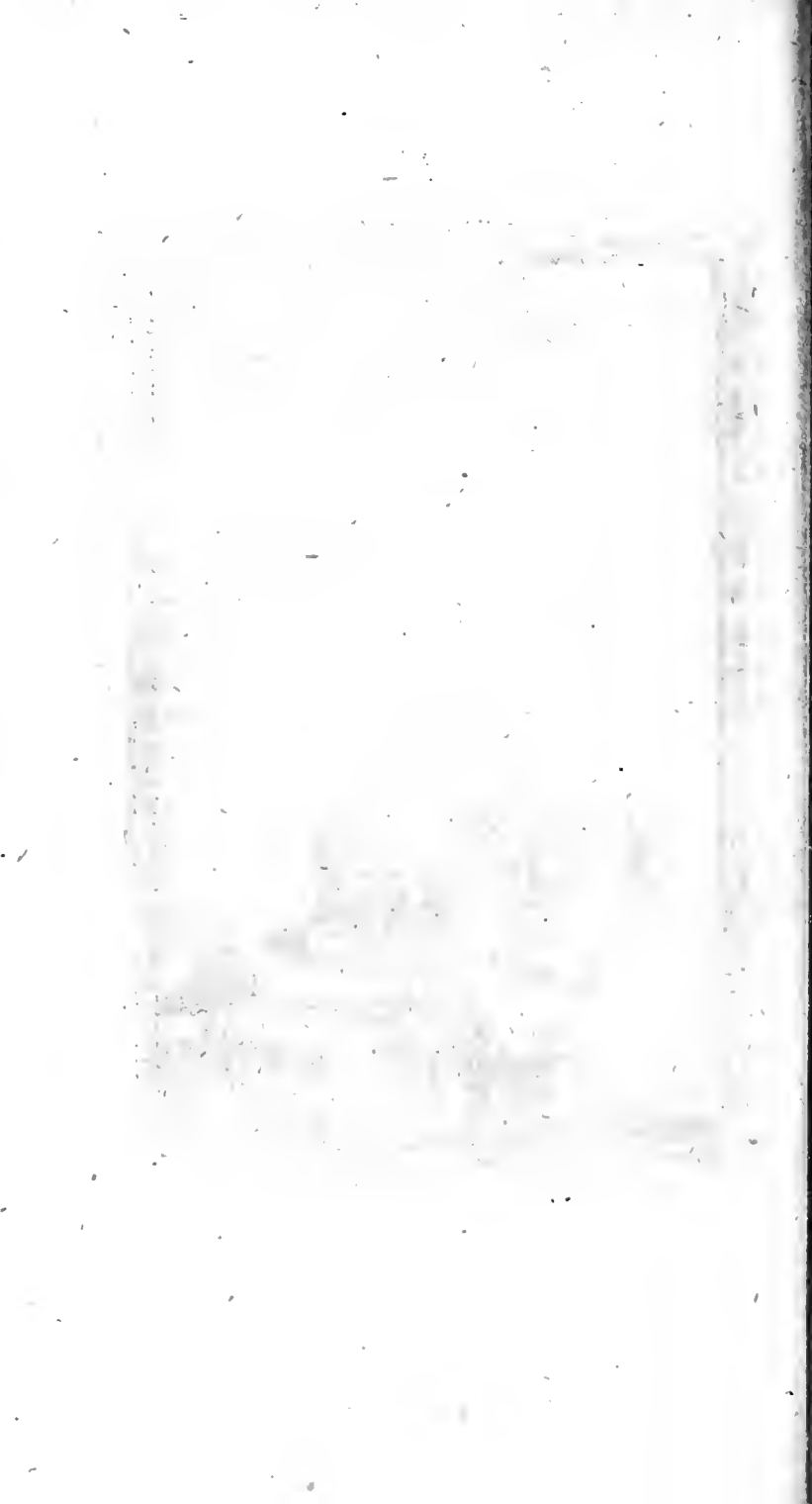
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\* The Cayenne sapajou is a yellowish monkey. It has large eyes, a white face, a black chin, and a slender frame. It is alert and caressing; but it is equally injured by cold as the sagoins of Brasil; *R. lat. du voyage de Gênes, par Bréger, p. 163.*



*A. Bell's sculp.*

SAMIRI or ORANGE MONKEY.



## The SAKI\*, or Fox-tailed Monkey.

**T**HE Saki, which is commonly called the fox-tailed monkey, because its tail is garnished with very long hair, is the largest of the fagoins. When full grown, it is about seventeen inches long; but the largest of the other five species exceeds not nine or ten. The hair on the body of the saki is very long, and that on the tail is still longer. His face is reddish, and covered with a whitish down. He is easily distinguished from all the other fagoins, sapajous, and monkeys, by the following characters.

### *Distinctive*

\* Fox-tailed monkey, with a swarthy face, covered with short down; fore head and sides of the face with whitish and pretty long hair; body with long dusky brown hairs, white or yellowish at their tips; hair on the tail very long and bushy, sometimes black, sometimes reddish; belly and lower part of the limbs a reddish white. Length from nose to tail near a foot and a half, tail longer, and like to that of a fox: Hands and feet black, with claws instead of nails; *Pennant's synopsis of quad.* p. 130.

Saki. *Simia minima*, capite albido, dorso fusco, pone rufescente, cauda crinita. Sakee Winkee; *Brown's nat. hist. of Jamaica*, chap. 5. sect. 5.

Cagui major Brasiliensibus; *Marcgr.* p. 227.

*Cercopithecus pilis nigris*, apice albido, vestitus, cauda pilis longissimis nigris obsita; *Briffon. quad.* p. 138. 141.

*Simia pithecia*, caudata, imberbis, vellere nigro, apice albo, cauda nigra, villosissima; *Linn. syst. nat.* p. 40.

Saccawinkee; *Bancroft's Guiana*, p. 135.

*Distinctive Characters of this Species.*

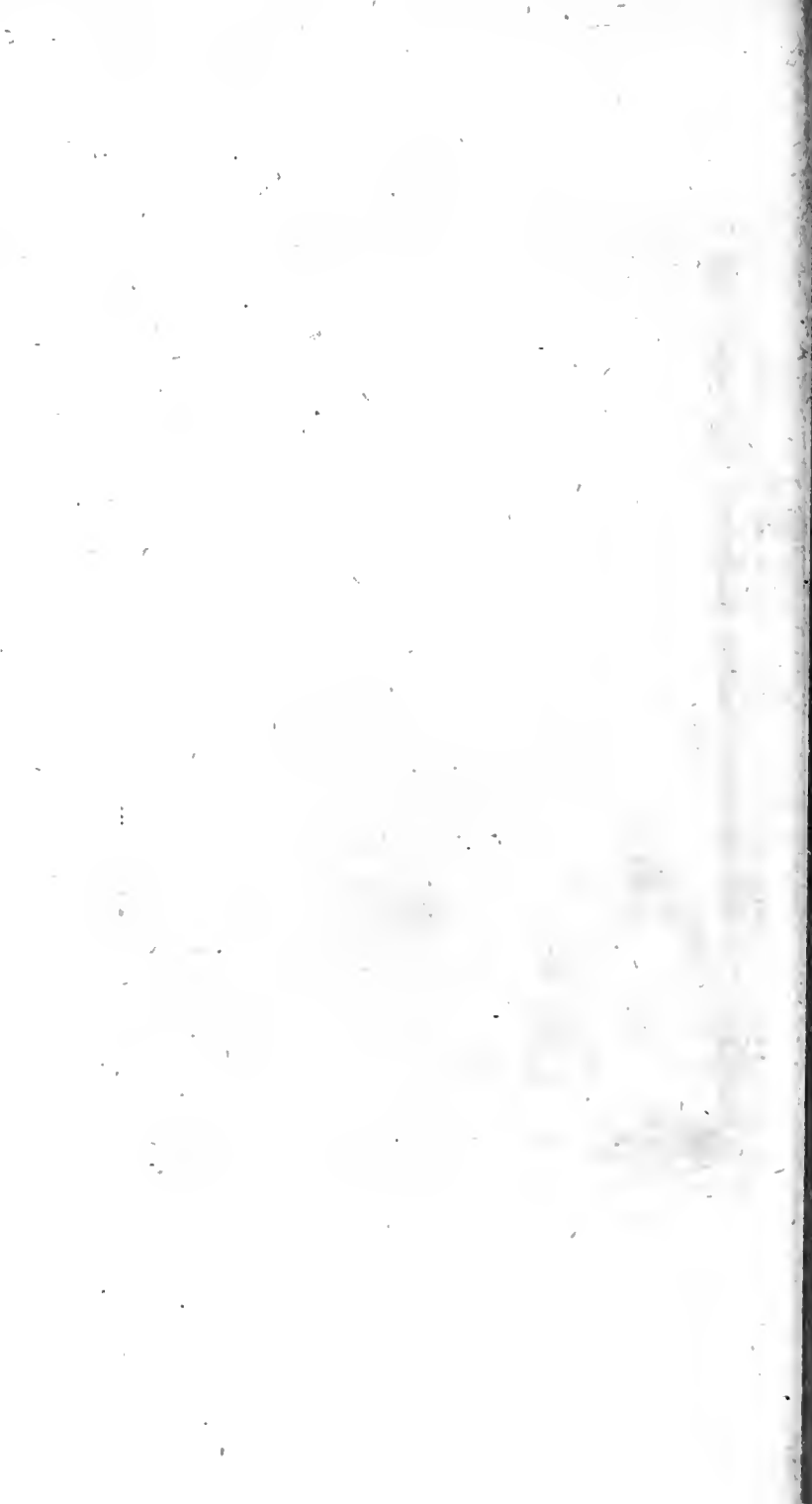
The saki has neither cheek-pouches nor callosities on his buttocks. His tail is flaccid, not prehensile, and one half longer than both head and body. The partition of the nostrils is very thick, and the apertures placed at a side. The face is tawny, and covered with a fine, short, whitish down. The hair on the upper parts of the body is blackish brown, and that on the belly and other inferior parts is reddish white. The hair on the body is still longer than that on the tail, beyond the point of which it hangs near two inches. The hair on the tail is generally blackish brown, like that on the body. This species seems to vary in colour. Some sakis have the hair both on the body and tail of a reddish yellow colour. This animal walks on four feet, and is near a foot and a half in length. The females are not subjected to the periodical evacuation.

The



*A. Bell sculp.*

SAKI or FOX TAILD MONKEY.





## The TAMARIN\*, or Great-eared Monkey.

**T**HIS species is much smaller than the preceding, and differs from it in several characters. The tail of the tamarin is covered with short hair, but that of the faki is garnished with hair remarkably long. The tamarin has also large ears, and yellow feet. It is a beautiful animal †, very lively, and easily tamed, but so

\* Great-eared monkey, with a round head, and a swarthy, flesh-coloured, naked face; upper lip a little divided; ears very large, erect, naked, and almost square; hair on the forehead upright and long; on the body, soft, but shaggy: The head, whole body, and upper part of the limbs, black, except the lower part of the back, which is tinged with yellow; hands and feet covered with light orange coloured hairs, very fine and smooth; nails long and crooked; tail black, and twice the length of the body; teeth very white; *Pennant's Synops. of quad. p. 131.*

*Cercopithecus minimus niger leontocephalus, auribus elephantinis; Barrère, Franc. Equin. p. 151.*

*Simia midas, caudata, imberbis, labio superiore fisso, auribus quadratis nudis, unguibus subulatis, pedibus croceis; Linn. Syst. Nat. p. 42.*

The little black monkey; *Edwards's Hist. of Birds, p. 196.*

*Tamarin*, the name of this animal in Cayenne; *Binet, p. 341.*

† In Cayenne, there are very small monkeys called *tamarins*, which are extremely beautiful. They exceed not the size of a squirrel, and have the head and face of a lion, small teeth as white as ivory, and arranged with great symmetry. They are black, with yellowish spots on the shoulders.

so delicate that it cannot long resist the inclemency of our climate.

*Distinctive Characters of this Species.*

The tamarin has neither cheek-pouches nor callosities on the buttocks. The tail is flaccid, and twice the length of the body and head. The partition between the nostrils is very thick, and the apertures are placed at a side. The face is of a dusky flesh-colour. The ears are square, large, naked, and of the same colour; and the eyes are chestnut. The upper lip is divided nearly like that of the hare. The head, body, and tail, are covered with soft, blackish brown hair, and the hands and feet with short orange coloured hair. The body and limbs are finely proportioned. This animal walks on four feet; and the head and body together exceed not seven or eight inches in length. The females are not subject to the menses.

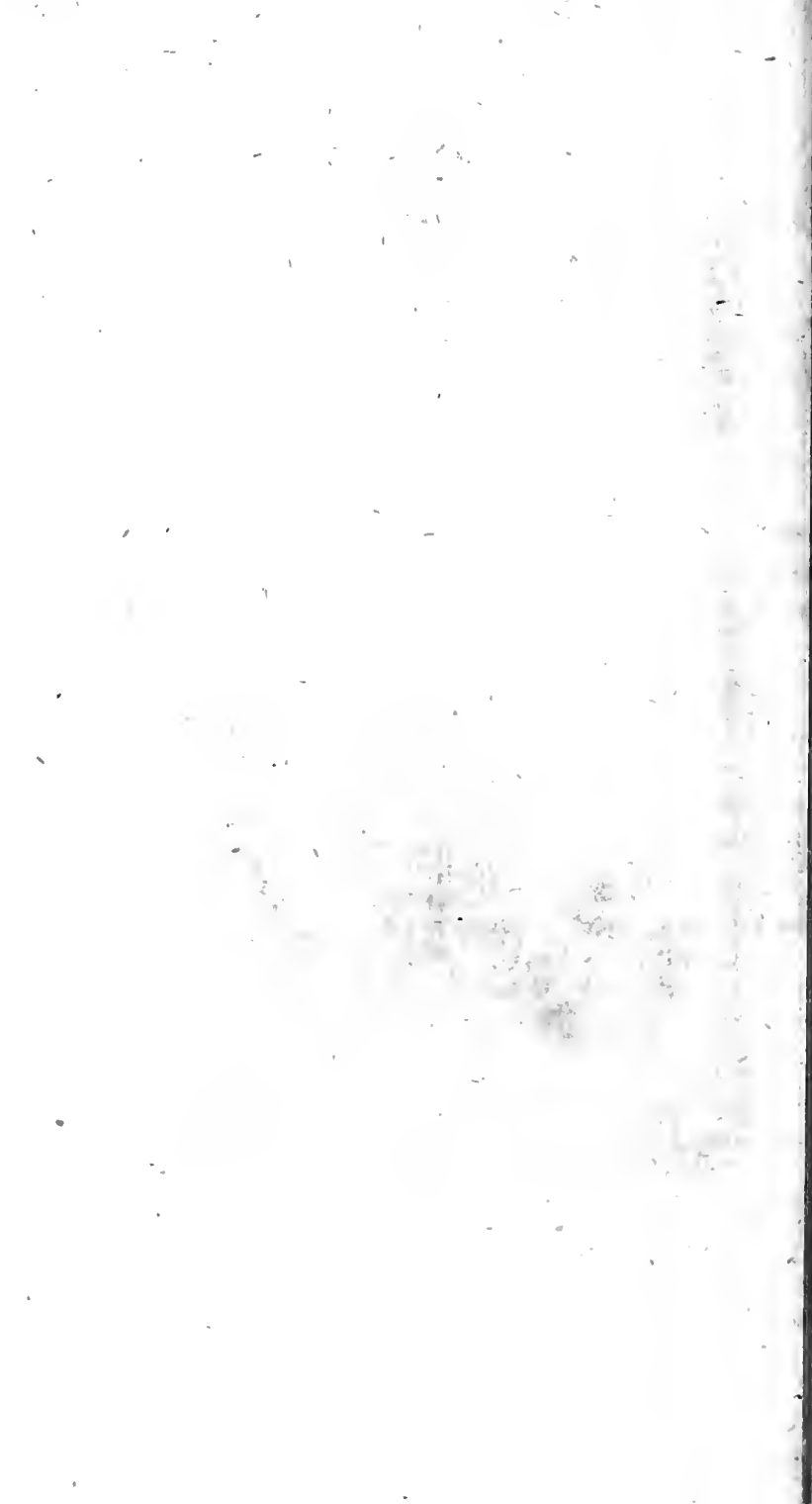
The

ders. The pats are like those of the monkey, and orange coloured. They are very familiar and playfome; *Voyage à Cayenne, par Antoine Binct, p. 341.*



*A. Bell, sculpt.*

TAMARIN or GREAT EARED MONKEY.



## The OUISTITI\*, or Striated Monkey.

**T**HE Ouistiti is still smaller than the tamarin, both the head and body not exceeding half a foot in length. His tail is more than a foot long, and, like that of the maucauco, marked with alternate rings of black and white; the hair on the tail is still stronger, and more bushy than that of the maucauco. The face of the ouistiti is naked, and of a dark flesh-colour.

He

\* *Ouistiti*, a sound articulated by this animal, and which we have adopted for its name.

The striated monkey, with a very round head. About the ears are two very full tufts of white hairs standing out on each side; irides reddish; face a swarthy flesh-colour; ears like the human; head black; body ash-coloured, reddish, and dusky, the last forms striated bars cross the body; tail full of hair, annulated with ash-colour and black; body seven inches long; tail near eleven; hands and feet covered with short hairs; fingers like those of a squirrel; nails or rather claws, sharp; *Pennant's synopsis of quad. p. 132.*

*Galeopithecus, sagoin a Brasiliensibus nominatus; Gesner. Icon. quad. p. 96.*

*Sagouy; Mission au Maragnon, par le P. d'Abbeville, p. 252. Cagui minor; Marogr. Hist. Nat. Brasil. p. 227.*

*Cercopithecus Brasiliensis tertius, sagouin; Clus. Exot. p. 372. Gesner. quad. p. 869. Raii Synopsis. quad. p. 154. Klein. quad. p. 87. tab. 3 Ludolph Com Æthiop. p. 58.*

*Cercopithecus tenuis transversis alternatim fuscis, et e cinereo albis variegatus, auriculis pilis albis circumdatis; Brisson, quad. p. 143.*

Simia

He has two tufts of long white hair before his ears, which conceal them when we look the animal in the face. Mr Parsons has given a good description of this animal in the Philosophical Transactions \*; and Mr Edwards, in his Gleanings, has given an excellent figure of it. He remarks, that, of several he saw, the largest weighed not above six ounces, and the smallest only four and a half; and judiciously adds, That the supposition that the small Æthiopian monkey mentioned by Ludolph, under the denomination of *fonkes*, or *guereza*, was the same animal with the ouistiti, has no foundation †. It is certain, that neither the ouistiti, nor any other sagoïn, exists in Æthiopia; and the *fonkes* or *guereza* of Ludolph is probably the *maucauco* or *loris*, which are common in the southern regions of the Old Continent. Mr Edwards farther remarks, that, when the ouistiti is in good health, its hair is very bushy; that one of those he saw,

which

*Simia Jaccus, caudata, auribus villosis patulis, cauda hirsutissima, curvata, unguibus subulatis, pollicum rotundatis: Linn. syst. Nat. p. 40.*

\* Phil. Transf. vol. 47. p. 146.

† J. Ludolphus, in his history of Æthiopia or Abyssinia, hath given two figures of this animal. They are described, p. 58. in the English translation of that work. He calls it *Fonkes*, or *Guereza*; but his description doth not agree at all with the figures: So that I imagine this was met with in Holland, and supposed to be the little monkey described by Ludolphus, though it was really brought from Brasil, which was possessed by the Hollanders at the time of the publication of that history; *Edwards's Gleanings, p. 16.*

which was very vigorous, fed upon several things, as biscuits, fruits, pot herbs, insects, and snails; that one day being unchained, it darted upon a small gold-fish that was in a basin, which it killed and devoured with avidity; and that afterwards small eels were presented to it, which, at first, frightened it, by twisting round its neck; but that it soon overcame and ate them. Mr Edwards subjoins a fact, which proves that these small animals might be multiplied in the southern parts of Europe: He tells us, that they produced young in Portugal, where the climate is favourable to them. They are at first very ugly, having hardly any hair on their bodies; and they adhere firmly to the teats of the mother. When they have become a little larger, they fix themselves upon her back or shoulders; and, when she is fatigued by carrying them, she rubs them off against a wall, and the father instantly allows them to mount upon his back, in order to assist the mother\*.

*Distinctive Characters of this Species.*

The ouistiti has neither check-pouches nor callosities on the buttocks. His tail is flaccid, very bushy, annulated with alternate bars of black and white, or rather of brown and gray, and twice as long as the head and body. The  
partition

\* Edwards's gleanings, p. 17.

partition of the nostrils is very thick, and the apertures are placed at a side. The head is round. The top of the front is covered with black hair; and above the nose there is a white spot without hair. The face is likewise almost naked, and of a deep flesh colour. On each side of the head, before the ears, is a tuft of long white hairs. The ears are roundish, flat, thin, and naked. The eyes are of a reddish chestnut colour. The body is covered with gray ash-coloured hair, interspersed with a little yellow on the throat, breast, and belly. He walks on four feet; and often exceeds not half a foot in length. The females do not menstruate.

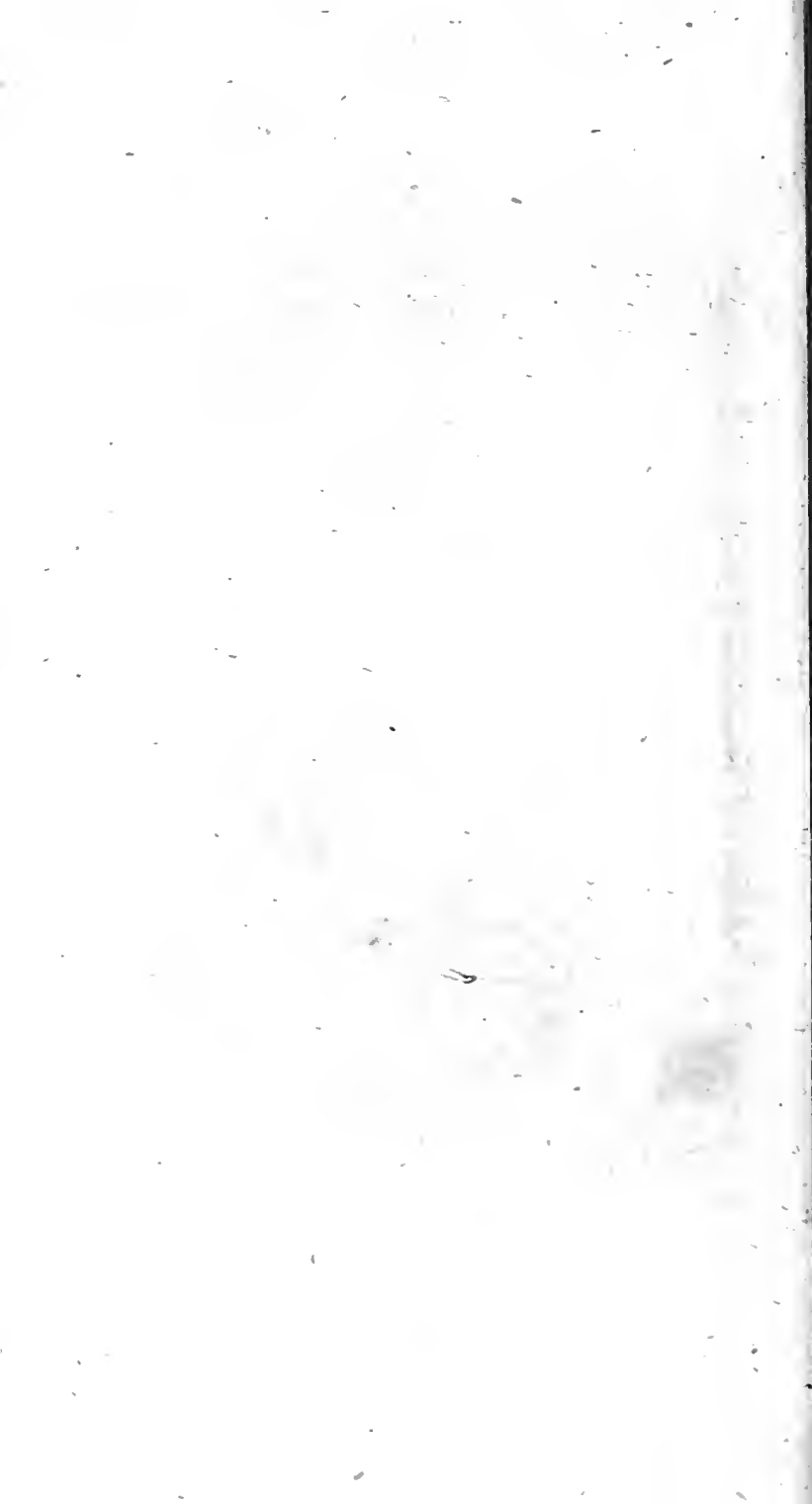
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*A. Bell sculpt.*

OSTIUM or STRIATED MONKEY.



## The MARIKINA\*, or Silky Monkey.

THE Marikini is commonly distinguished by the name of the small *lion-ape*. We reject this compound denomination, because the marikina is not an ape, but a fagoin. Besides, he has no more resemblance to a lion than a lark has to an ostrich, there being no other relation between them than a kind of mane round the face of the marikina, and a tuft of hair at the end of his tail. His hair is long, silky, and vivid. He has a round head, a brown face, red eyes, and round naked ears, concealed under the long hairs which surround his face: These hairs are

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of

\* *Marikina*, the name of this animal in Maragnon; *Mission du P. d'Abbeville*, p. 252.

The silky monkey, with a flat face, of a dull purple colour; ears round and naked; on the sides of the face the hairs very long, turned backwards, of a bright bay colour; sometimes, yellow, and the former only in patches; the hair on the body long, very fine, silky, glossy, and of a pale bright yellow; hands and feet naked, and of a dull purple colour; claws instead of nails to each finger; length of the head and body ten inches; tail thirteen and a half, a little bushy at the end; *Pennant's synops. of quad.* p. 133.

*Cercopithecus minor dilute olivaceus, parvo capite, Acarima* à Cayenne; *Barrère Franc. Equin.* p. 151.

*Cercopithecus ex albo flavicans, faciei circumferentia saturate rufa; le petit singe-lion; Brisson. quad.* p. 142.

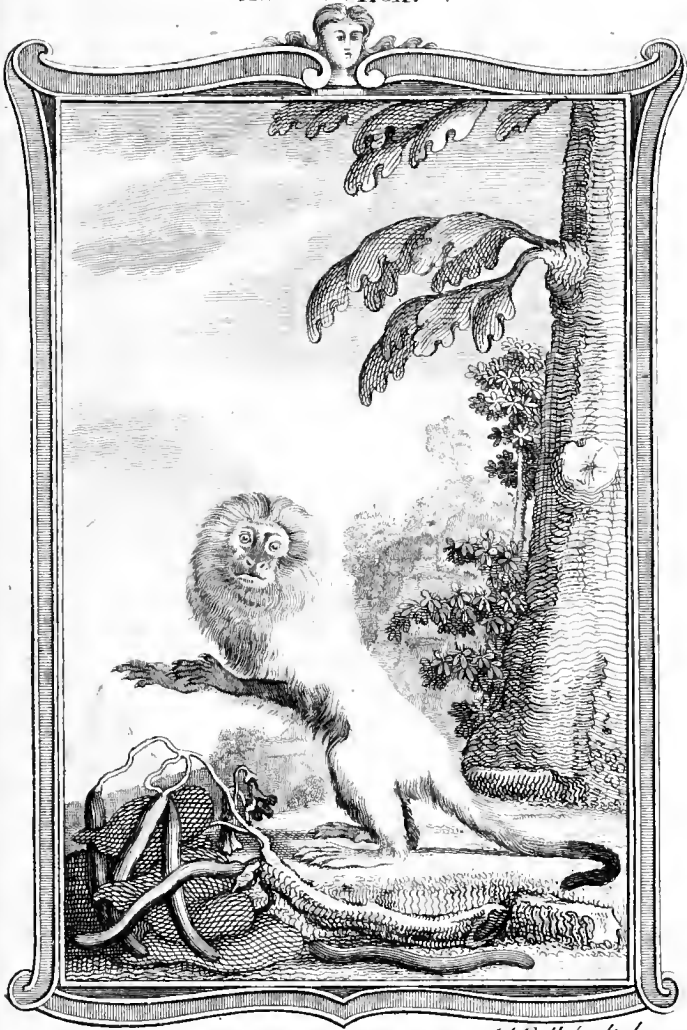
*Simia rosalia, caudata, imberbis, capite piloso, faciei circumferentia pedibusque rubris, unguibus subulatis; Linn. Syst. Nat.* p. 41.

of a bright red colour, and those on the body and tail are pale yellow, almost white. This animal has the same manners, the same vivacity, and the same inclinations with the other fagoins. Its constitution seems to be more robust; for we have seen one that lived five or six years in Paris, without any other precaution than keeping it during the winter in a warm room.

*Distinctive Characters of this species.*

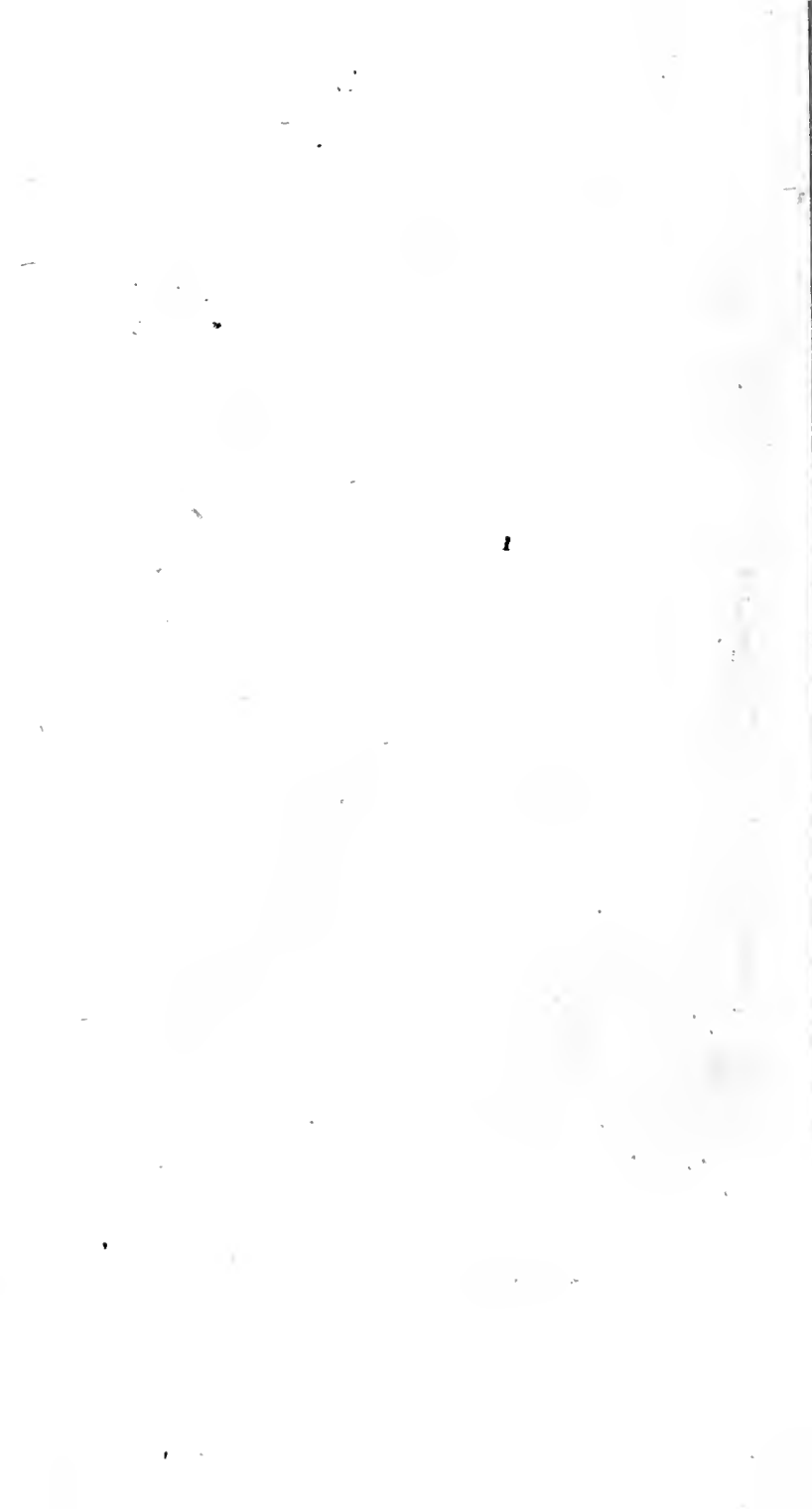
The marikina has neither cheek-pouches nor callosities on the buttocks. His tail is flaccid, or not prehensile, and almost twice as long as both the head and body. He has round naked ears, long reddish hairs around the face, and bright yellowish white hairs, nearly of an equal length, on the rest of the body, with a considerable tuft at the extremity of the tail. He walks upon four feet; and exceeds not eight or nine inches in length. The female is not subject to the men-  
ses.

The



*A. Belle sculpture!*

MARIKINI or SILKY MONKEY.



## The PINCHE\*, or Red-tailed Monkey.

**T**HE Pinche, though very small, is larger than either the ouistiti or the tamarin. Including head and body, it is about nine inches long, and the length of the tail is, at least, eighteen inches. It is rendered remarkable by a kind of smooth white hair upon the top and sides of the head, especially as this colour is wonderfully contrasted by that of the face, which is black, and interspersed with a gray down. The eyes are black, and the tail, from its origin to near the middle, is of a lively red, where it changes to a brownish black, which continues

O 2

to

\* *Pinche*, the name of this animal at Maynas; *Condamine's* voy. p. 83.

Red-tailed monkey with a round head and black pointed face; ears round and dusky; hair on the head white, long, and spreading over the shoulders: The shoulders and back are covered with long and loose brown hairs; rump and half the tail deep orange coloured, almost red; the remaining part black; the throat black; breast, belly, and legs white; insides of the hands and feet black; claws crooked and sharp; length of the head and body eight inches; tail above twice as long; *Pennant's Synops. of quad.* p. 154.

*Cercopithecus pilis ex fusco et rufo vestitus, facie ultra auriculas usque nuda et nigra, vertice longis pilis obsita; Briffon. quad.* p. 150.

*Simia Oedipus, caudata, imberbis, capillo dependente, cauda rubra, unguibus subulatis; Linn. Syst. Nat.* p. 41.

The little lion monkey; *Edwards's Hist. of Birds*, p. 195.

to the point. The hair on the superior parts of the body is of a yellowish brown colour; that on the breast, belly, hands, and feet, is white. The whole skin is black. The throat is naked and black, like the face. Though its figure be singular, it is a beautiful animal. Its voice is soft, and rather resembles the chanting of a small bird than the cry of a quadruped. It is extremely delicate, and requires great precautions to be transported from America to Europe\*.

*Distinctive Characters of this Species.*

The pinche has neither cheek-pouches nor callosities on the buttocks. His tail is not prehensile, and is more than twice the length of the head and body. The partition of the nostrils is thick, and the apertures are placed at a side. The face, throat, and ears are black; on the head are long white hairs. The muzzle is broad, and the face round. The hair on the body is pretty long, of a yellowish brown or reddish colour till near the tail, where it becomes orange;

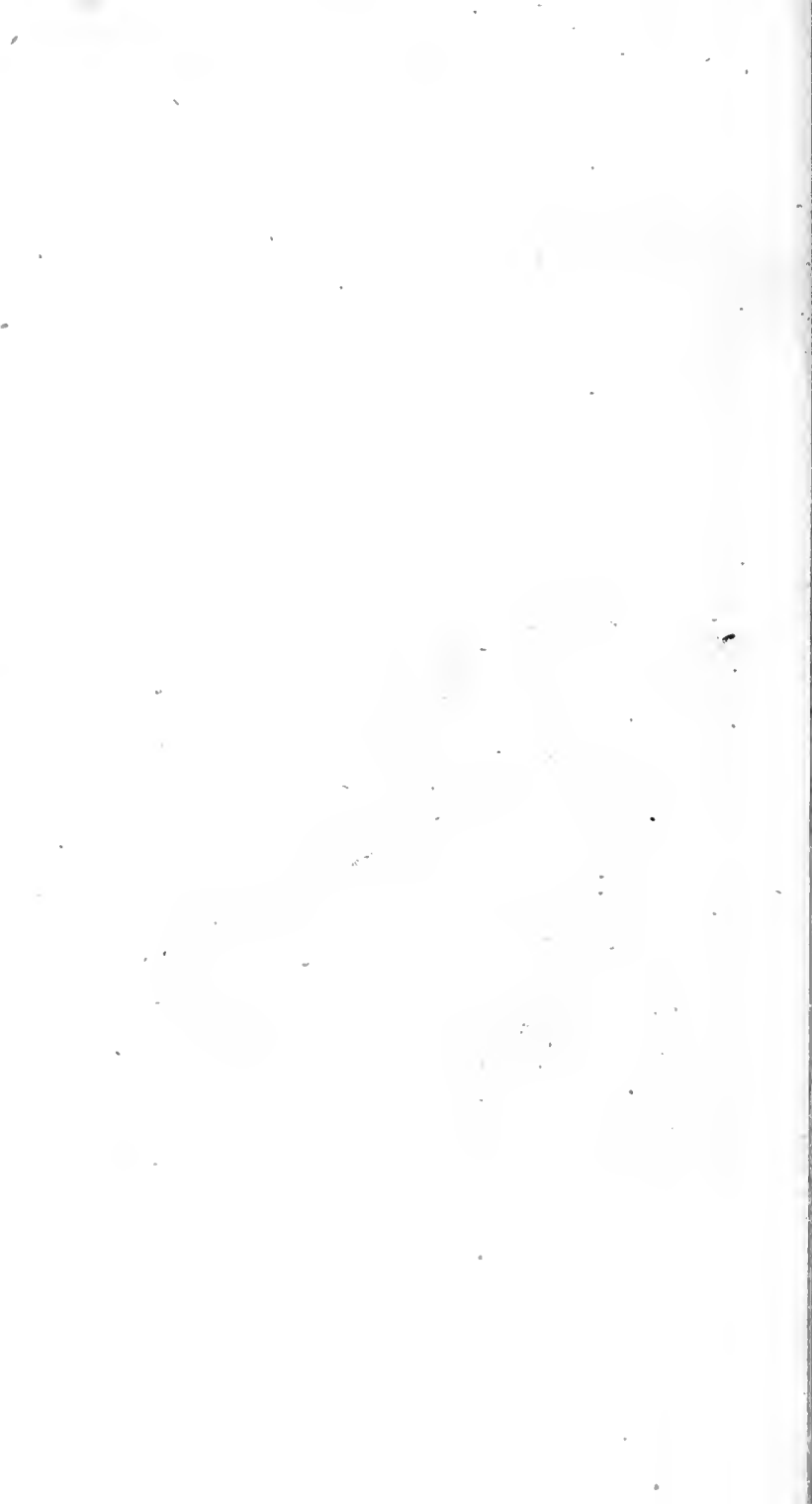
\* In Brasil, de Lery remarks, there is a marmot, which the savages call *sagoin*. It exceeds not the size of a squirrel, and is of the same reddish colour. Its muzzle resembles that of the lion. It is one of the most beautiful animals I have ever seen; and, if it were as easily transported as the monkey, it would be much more esteemed. It is so delicate, that it cannot endure the motion of a ship; and, besides, it is so haughty, that the smallest affront makes it die with chagrin; *Voyage de Jean de Lery, p. 163.*





*E. A. Bell sculp!*

PINCHE or RED MONKEY. ✓



orange; on the breast, belly, hands, and feet, it is white, and shorter than on the body. The tail, from the origin to one half of its length, is a vivid red, then brownish red, and toward the point it is black. He is about nine inches in length, and walks on four feet. The females are not subject to the menstrual evacuation.

## The MICO\*, or fair MONKEY.

**W**E owe our knowledge of this animal to M. de la Condamine; and, therefore, we shall transcribe the account he has given of it: ‘ The monkey, of which the Governour of Para made me a present, is the only one of the kind that had been seen in this country. The hair on its body was of a beautiful silvery white colour; and that on its tail was a shining chefnut approaching to black. Its ears, cheeks, and muzzle, were of so lively a vermilion, that it had the appearance of being the work of art. I kept it twelve months; and, when almost in sight of the French coast, it was still alive. But, notwithstanding all my precautions to defend it against the cold, it fell a victim to the rigour of the season before my arrival. . . . I have preserved it in aqua-vitae, which will be sufficient to show that  
‘ my

\* The fair monkey, with a small round head; face and ears of the most lively vermilion colour; body covered with most beautiful long hairs of a bright and silvery whiteness, of matchless elegance; tail of a shining dark chefnut; head and body eight inches long; tail twelve; *Pennant's synopsis of quad.* p. 134.

*Cercopithecus ex cinereo albus argenteus, facie auriculisque rubris splendidibus, cauda castanei coloris; Brisson. quad.* p. 142.

'my description is not exaggerated \*.' From this narration it is obvious, that M. de la Condamine's description will apply to no other animal than the *Mico*; and that it is a distinct, and probably a very rare species. Though remarkable for the beauty of its hair, and the lively red which adorns its face, it was never mentioned by any former author or traveller.

*Distinctive Characters of this Species.*

The mico has neither cheek-pouches nor callosities on the buttocks. The tail is about one half longer than the head and body, and is not prehensile. The partition of the nostrils is thinner than that of the other fagoins; but their apertures are placed at a side. Its face and ears are naked, and of a vermilion colour. The muzzle is short; the eyes are distant from each other; the ears are large; the hair is of a beautiful silvery white colour, and that of the tail of a glossy brown, approaching to black. It walks on four feet, and exceeds not seven or eight inches in length. The females are not subject to the menfes.

NOTICES

\* Voyage sur la rivière des Amazones, par M. de la Condamine, p. 165.

*NOTICES of some Animals which are not expressly treated of in the Course of this Work.*

WE have now finished, according to the extent of our ability, the history of quadrupeds. But, to render it still more complete, those of which we could not procure an exact knowledge must not be passed over in silence. Their number is small; and even of this small number, several of them are only varieties of the species already described.

## N O T I C E I.

### The WHITE, or POLAR BEAR\*.

**T**HE white bear is a famous animal in our most northern regions. It is mentioned by Martin, and some other voyagers. But none  
of

\* Polar bear, with long head and neck; short round ears; end of the nose black; vast teeth; hair long, soft, white, and tinged in some parts with yellow; limbs of great size and strength.



*Abell sculp.*

MICO or FAIR MONKEY





of their descriptions are so complete as to enable us to ascertain whether it differs in species from the common bear. If what they have said, however, be exact, it is probably a distinct species. But, as we knew that the wolf varies in different climates, some of them being black, others brown, others white, and others variegated, colour is a character of no value in constituting different species. I saw two small bears which had been brought from Russia, and were entirely white \*; and yet they were unquestionably of the same species with our Alpine bears. These animals likewise vary greatly in size. As they live long, and become very thick and fat in places where they have plenty of nourishment, and are not disturbed, the character drawn from magnitude is equivocal. Hence we are not authorised to conclude, that the bear of the northern seas is a peculiar species, solely because he is

strength. It grows to a vast size, the skins of some being thirteen feet long; *Pennant's Synops. of quad. p. 192.*

White bear; *Martin's Spitzbergen, p. 100. Egede, Greenl. p. 59. Ellis's voy. p. 41. Crantz, Greenl. vol. 1. p. 73. Barentz's voy. p. 18. and 45. La Hontan's voy. vol. 1. p. 235. Catesby's Carolina, app. p. 26.*

*Ursus albus Martensii; Klein. quad. p. 82.*

*L'Ours blanc; Brisson. quad. p. 128.*

\* We find white land-bears not only in Russia, but in Poland, Siberia, and Tartary. The mountains of Great Tartary furnish vast numbers of white bears; *Relat. de Grande Tartarie, p. 8.* These mountain bears do not frequent the sea, and yet they are white. This colour, therefore, seems rather to proceed from the difference of climate than from that of the element inhabited by these animals.

is white and larger than the common kind \*. The difference of habits seems not to be more decisive than that of colour and magnitude. The bear of the northern seas feeds upon fishes. He never quits the margins of the sea, and often inhabits the floating islands of ice. But, if we consider that the bear is an animal which eats every thing, that, when pressed with hunger, he has no choice, and that he is not afraid of water, these habits will not appear sufficient to form distinct species. The fish eaten by the sea-bears is rather a kind of flesh, being chiefly the carcasses of whales, walruses, and seals. The climate produces no other animals. Neither does it afford grain or fruits; and, consequently, the bear is under the necessity of subsisting on the productions of the sea. Is it not probable that our bears, if transported to the mountains of Spitzbergen, and finding no food upon land, would take to the sea in quest of subsistence?

Colour, size, and mode of living, being insufficient, no other essential characters remain but those which may be derived from figure. Now,  
all

\* *Urfus in Polonia variat, maximus nigricans, minor fulvus, minimus argentinus, in confiniis Moschoviae pilis nigris et argentei coloris mixti. . . . ex Urfo occiso pellicula detracta fere ad ulnas sex protendebatur in terra Gbelmensi, altera in Palatinatu Braclavienfi, tertia ad ulnas quinque in Bondargoute pago Palatinatus Pomeraniae . . . . non raro ex Lithuania advehuntur Gedanum pelles octo pedum; Rzaczynski, p. 322. —Nota. This passage proves that there are white land-bears as large as those of the Northern seas.*

all that voyagers have said of the sea-bear, amounts only to this; that his head, body, and hair are longer than those of our bear, and that his skull is much harder. If these differences were real and considerable, they would be sufficient to constitute a separate species. But I am not certain that Martin has examined with accuracy, and that the other writers who copied him, have not exaggerated\*. ‘These white bears,’ he remarks, ‘are quite otherwise shaped than those that are seen in our country; they have a long head like unto a dog, and a long neck, and they bark like dogs that are hoarse, and all their whole body is much otherwise shaped than ours. They are slender in the body, and a great deal swifter;’ *Martin’s voyage to Spitzbergen*, p. 100. This description furnishes the following remarks: 1. That the author does not make these bears larger than ours; and, consequently, that we ought to suspect the evidence of those who tell us that the sea-bear is sometimes thirteen feet in length †. 2. That hair as soft as wool is not a specific character; for, to render hair soft, and even more bushy, it is only necessary that an animal be frequently in the water, as appears from the land and

\* Anderson’s hist. of Greenland; and Ellis’s Voy. to Hudson’s Bay.

† A white bear, which had been killed, was brought aboard. Its skin was thirteen feet long; *Troisième voyage des Hollandois par le Nord*, p. 35.

and water beavers. The latter, who dwell oftener in the water than on land, have coarser and less bushy hair : And, I am inclined to think, that the other differences are neither real nor so conspicuous as Martin would have us to believe ; for Dithmar Blefken, in his description of Iceland, mentions these bears, and assures us, that he saw one killed in Greenland, which raised itself on the two hind feet, like our bears ; but he says not one word which indicates that the white bear of Greenland is not entirely similar to ours\*. Besides, when these animals find prey on land, they never go to sea in quest of food. They devour rein-deer, and such other animals as they can seize. They even attack men, and never fail to dig up dead bodies †. But hunger, which they often feel in these desert and barren lands, obliges them to frequent the water, in quest of seals, young walruses, and whales.

\* Habet Islandia coloris albi ingentes Urfos . . . in Groenlandia ursum magnum et album habuimus obviam, qui neque nostimebat neque nostro clamore abigi poterat, verum recta ad nos tanquam ad certam praedam contendebat, cumque propius nos accessisset, is bombardam trajectus, ibi demum erectus, posterioribus pedibus tanquam homo stabat donec tertio trajiceretur, atque ita exanimatus concidit ; *Dithmar Blefken.* p. 64.

† The white bears live upon dead whales, and, in the neighbourhood of these carcasses, they are most frequently found. They likewise devour men, when they can surprize them. If they scent the place where a dead body is interred, they remove the earth and stones, open the coffin, and eat the carcass ; *Recueil des voyages du Nord, tom. 2. p. 116.*

whales. They take up their residence on islands of ice, on which they are often seen floating, and never abandon their station as long as they can find abundance of food. When these boards of ice are detached in the spring, the bears allow themselves to be carried along; and, as they cannot regain the land, or abandon the ice on which they are embarked, they often perish in the open sea. Those who arrive with the ice on the coasts of Iceland or Norway \*, are starved to such a degree, that they devour every thing they meet, which may have given rise to the prejudice, that these sea-bears are more fierce and voracious than the common kind. Some authors tell us, that the sea-bears are amphibious like the seals, and that they can live as long as they please under water. But the contrary is evident from the manner of hunting them: They are incapable of swimming long, and never accomplish above a league at a time. They are followed by a small boat, and are soon worn out with fatigue. If they could dispense with respiration, they would dive to the bottom, in order to rest themselves. But, when they dive, it is only for a few seconds; and, for  
 fear

\* When the islands of ice separate from the North of Greenland, and are driven southward, the white bears dare not depart from them. When they arrive in Norway, or at any island, they are mad with hunger; and strange stories are told of the ravages made by these animals; *Recueil des voyages du Nord, tom. 1. p. 100.*

fear of drowning, they allow themselves to be killed on the surface of the water\*.

Seals are the common prey of the white bears †. But the walrus, from whom they sometimes carry off the young, pierces them with its tusks, and puts them to flight. The whale likewise overwhelms them by its weight, and banishes them from the places they frequent. They sometimes, however, devour the young whales. All bears are naturally very fat; and the white bears, which live upon animals loaded with grease, are fatter than the common kind. Their fat is very like that of the whale. The flesh of these bears is not bad, and their skin makes a very warm and durable fur ‡.

#### SUPPLEMENT.

\* This white bear swam about a mile. We pursued him briskly with three boats; and, after he was fatigued, we killed him; *Trois navigations des Hollandois au Nord, par Gerard de Vera, p. 110.*—They swim from one board of ice to another: When we pursued them in our boats, they dived at one end of the boat, and came up at the other. They likewise run very well upon land; *Recueil des Voyages du Nord, tom. 2. p. 116.*—Upon the coast of Spitzbergen, a white bear took the water, and swam more than a league. We followed with our boats, and killed him, &c.; *Troisième voyage des Hollandois, p. 34.*

† When we killed this white bear, his stomach was opened, in which we found entire pieces of the sea-dog, with the hair and skin on them, which shows that he had but lately devoured them; *Ibid. p. 36.*

‡ The white bears go in quest of wolves and sea-dogs, and prefer whales to every other fish. . . . They dread the whale,

who

## S U P P L E M E N T.

I here give a figure of the white sea-bear, from a drawing sent me by the late Mr Colinson. If this drawing be exact, it is certain that the sea-bear is a different species from the land-bear. The head is so long, when compared with that of the common bear, that this character alone is sufficient to constitute a distinct species: And those voyagers adhere to truth when they tell us, that the figure of the sea-bear is totally different from ours, and that its head and neck are much longer. From the drawing it likewise appears, that the feet, instead of resembling the human hand, like those of the land-bear, are formed nearly like the feet of a large dog, and other carnivorous animals of this kind. Besides, from several relations, it appears, that some of these bears are much larger than the land-bear.

Gerard

who scents and pursues them from a natural antipathy; because they eat her young; *Recueil des voy. du Nord. tom. 1. p. 99.*—The skins of the white bear are of great use to those who travel in winter. They are dressed, even at Spitzbergen, by steeping them in warm water, which extracts the greafe; and they are afterwards dried. . . . Their greafe is like suet, and, after being well melted, it becomes as clear as whale oil. It is generally burnt in lamps, and has not so bad a smell as fish oil. Our sailors sell it for whale oil. The flesh of these bears is fat and whitish.—Their milk is very white and fat; *Troisieme voy. des Hollandois, tom. 2. p. 115.*

Gerard de Veira asserts, that, after killing one of these bears, he measured the skin, and found it to be twenty-three feet long, which is more than triple the length of the common bear\*. We likewise find, from the Collection of Voyages to the North, that these sea-bears are larger and more ferocious than ours. But, in the same Collection, it is said, that, though these bears are differently formed, and have the head and neck much longer, and the body more slender and agile, they are nearly of the same size with the common kind †.

All voyagers likewise agree, that the sea-bears have the bones of the head so hard, that no blow of a club, though sufficient to bring an ox to the ground, can stun them; and that their voice rather resembles the barking of an enraged dog than the deep murmuring cry of the common bear. Robert Lade assure us, that, in the environs of the river Rupper, he killed two sea-bears of a prodigious size; that these famished and ferocious animals attacked the hunters with such impetuosity, that they killed several Savages, and wounded two Englishmen. In page 34. of the third Dutch Voyage to the North, we are told, that the sailors killed, on the coast of Nova Zembla, a sea-bear whose skin was thirteen feet long. Upon the whole, therefore, I

\* *Trois navigations admirables faites par les Hollandois au Septentrion*, p. 110.

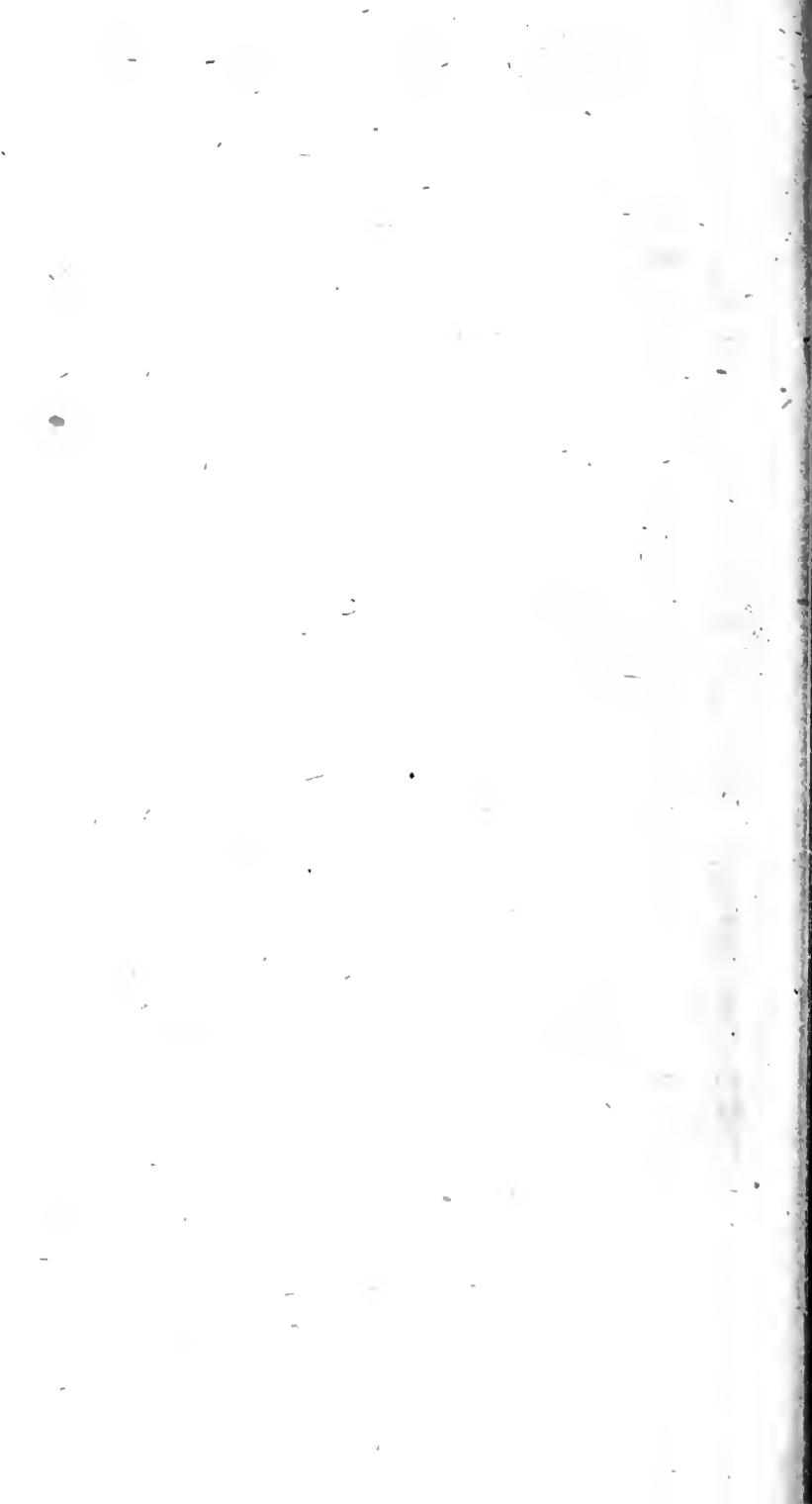
† *Recueil des Voyages du Nord*, tom. 2. p. 115.





*A. Bell Sculp.*

WHITE or POLAR BEAR.



am inclined to believe, that this animal, so much celebrated for its ferocity, is really a much larger species than our bear.

## II.

## The COW of TARTARY.\*.

M. GMELIN, in the New Memoirs of the Academy of Petersburg, has given a description of a Tartarian cow, which, at first sight, appears to differ from all those we have enumerated under the article *buffalo*. ' This cow, ' says he, ' which I saw alive, and had a drawing made of ' it in Siberia, came from Calmuck. It was ' about two and a half Russian ells in length.

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P

' By

\* Grunting ox, with a mane on the neck; whole body covered with long hair, reaching almost to the ground; back hunched; tail like that of a horse, covered with full white and long hairs, strikes with its head like a goat; is very unruly; found in the country of the Calmucks; *Pennant's Synops. of quad.* p. 5.

*Vacca grunniens, villosa, cauda equina, Sarluk; Nov. Com. Petrop. tom. 5. p. 339. Rubruquis voy. Harris's coll. vol. 1. p. 571.*

*Bos grunniens, cornibus teretibus, extrorsum curvatis, velere propendente, cauda undique jubata; Linn. Syst. Nat. p. 99.*

*Le boeuf velu; Le Brun. Voy. Moscou. tom. 1. p. 120.*

*Bubul; Bell's Trav. vol. 1. p. 224.*

‘ By this standard we may judge of its other  
 ‘ dimensions, the proportions of which have  
 ‘ been accurately observed by the painter. The  
 ‘ body resembles that of a common cow. The  
 ‘ horns are bended inward. The hair on the  
 ‘ body and head is black, except on the front  
 ‘ and ridge of the back, where it is white. It  
 ‘ has a mane on the neck ; and the whole body,  
 ‘ like that of a buck, is covered with very long  
 ‘ hair, which descends as far as the knees, and  
 ‘ makes the legs appear short. It has a bunch  
 ‘ on the back. The tail resembles that of a  
 ‘ horse, and is white and very bushy. The fore  
 ‘ legs are black, the hind ones white, and the  
 ‘ whole resemble those of the ox. Upon the  
 ‘ heels of the hind feet, there are two tufts of  
 ‘ long hair, the one before and the other behind ;  
 ‘ and, on the fore feet, there is but one tuft  
 ‘ behind. The excrements are more solid than  
 ‘ those of cows ; and, when the animal dis-  
 ‘ charges urine, it draws its body backward.  
 ‘ It lows not like an ox, but grunts like a hog.  
 ‘ It is wild, and even ferocious ; for, except the  
 ‘ man from whom it receives its food, it gives  
 ‘ blows with its head to every person who comes  
 ‘ near it. The presence of domestic cows it  
 ‘ hardly suffers : Whenever it perceives one of  
 ‘ them, it grunts, which it seldom does on any  
 ‘ other occasion.’ To this description M. Gmelin  
 adds, ‘ That it is the same animal mentioned  
 ‘ by Rubruquis in his travels into Tartary :  
 ‘ That

‘ That there are two species of it among the  
 ‘ Calmucks, the first called *Sarluk*, which I have  
 ‘ already described, and the second *Chainuk*,  
 ‘ which differs from the other by the largeness  
 ‘ of its head and horns, and also by the tail,  
 ‘ which at its origin resembles that of the horse,  
 ‘ and terminates like that of a cow. But they  
 ‘ both have the same natural dispositions.’

In the whole of this description, there is only a single character which indicates the Calmuck cows to be a particular species, and that is their grunting instead of lowing. In every other article, they have so strong a resemblance to the bison, that they must belong to the same species, or rather the same race. Besides, though the author says, that these cows do not low, but grunt, he acknowledges that they very rarely utter that kind of sound. Perhaps it was an affection peculiar to the individual he saw; for Rubruquis, and the other writers whom he quotes, do not mention this grunting. Perhaps the bisons, when enraged, likewise make a grunting noise. Even our bulls, particularly in the rutting season, have a hollow, interrupted voice, which has a greater resemblance to grunting than to lowing. I am persuaded, therefore, that this grunting cow of Gmelin is nothing else but the bison, and does not constitute a particular species.

## III.

## The TOLAI, or BAIKAL HARE\*.

THIS animal is very common in the neighbourhood of Lake Baikal in Tartary. It is somewhat larger than the rabbit, which it resembles in the figure of the body, the fur, the gait, the colour, the taste of the flesh, and the habit of digging a retreat in the earth. Their internal structure is likewise the same †; and there is no difference but in the length of the tail, that of the tolai being considerably longer. Hence

\* Baikal hare, with a tail somewhat longer than that of a rabbit; fur of the colour of the common hare; red about the neck and feet; tail black above, white beneath. It is larger than a rabbit, and inhabits the country beyond Lake Baikal; *Pennant's synopf. of quad. p. 253.*

*Lepus cauda in supina parte nigra, in prona alba; Brisson. quad. p. 97.*

† Cuniculus insigniter caudatus coloris leporini.—Circa internas partes haec observavi. Caecum colo paulo angustius erat, sed longius, utpote octo pollicum longitudinem aequans; prope ilei insertionem caerulefcens, digiti medii capax, sensimque decrefcens, in extremitate vix calamus scriptorium latitudine capit, colore ibidem albente gaudens. Oesophagus uti in lepore ventriculum medium subit. A Mongolis *Tolai* dicitur, idemque nomen Russis etiam harum regionum usitatum est; *Gmelin, nov. comment. Ac. Petrop. tom. 5. tab. 11. fig. 2.*

Hence it is extremely probable that this animal is only a variety in the species of the rabbit. Rubruquis, when treating of the animals in Tartary, says, 'There are rabbits with a long tail, and black and white hairs at the point. . . . There are no stags, few hares, a vast number of gazelles,' &c. This passage seems to insinuate, that our short-tailed rabbit is not found in Tartary \*, or rather, that it has undergone some variations in that climate, and particularly in the length of the tail; for, as the tolai resembles the rabbit in every other respect, it is unnecessary to consider them as belonging to different species.

IV.

The ZISEL †, or EARLESS MARMOT.

SOME authors, and among others Linnaeus, have

\* Relation des voyages en Tartarie, par Rubruquis, p. 25.

† Marmot without external ears, having only a small orifice on each side of the head for the admittance of sounds. It has a blunt nose, a long slender body, and a very short tail. The colour is dark gray, or cinereous brown; *Pennant's Synopsis of quad.* p. 276.

*Mus Noricus*; *Gesner, quad.* p. 737. *Raii synopsis quad.* p. 220.  
Ziesel;

have doubted whether the *Zifel* or *Zeifel*\*, (*citellus*) be a different animal from the hamster (*cricetus*). They have, indeed, a great resemblance to each other, and inhabit nearly the same countries †. They differ, however, in so many characters, that I am convinced they constitute two distinct species. The zifel is smaller than the hamster. Its body is long and slender like the weasel; but that of the hamster is thick like the rat. It has no external ears, but two auditory passages concealed under the hair. The ears of the hamsters are short; but they are short and very conspicuous. The zifel is of a uniform cinereous gray colour; but the hamster has three large white spots on each side of the breast. These differences, when joined to this circumstance, that the two animals, though they inhabit the same regions, never intermix, are sufficient

*Ziesel*; *Schwenkfeld. Theriograph. p. 86.*

*Mus citellus*, cauda abbreviata, corpore cinereo, auriculis nullis; *Linn. Syst. Nat. p. 80.*

*Cuniculus caudatus*, auriculis nullis, cinereus; *Briffon. quad. p. 101.*

\* *Mus Noricus* quem *citellum* appellant, in terrae cavernis habitat, ei corpus ut musclae domesticae longum et tenue, cauda admodum brevis, color pilis ut cuniculorum quorundam pilis, cinereus, sed obscurior. Sicut talpa caret auribus, sed non caret foraminibus quibus sonum ut avis recipit. Dentes habet muris dentium similes; ex hujus etiam pellibus, quamquam non sint preciosae, vestes solent confici; *Georg. Agricola de animantibus subterraneis, p. 488.*

\* The hamster is found in Misnia, Thuringia, and Hannover; and the zifel in Hungary, Austria, and Poland, where it is called *sufet*.



cient to remove every doubt with regard to the diversity of their species, though they resemble one another in the shortness of the tail and legs, in having teeth like those of the rat, and even in natural habits, such as digging retreats in the earth, laying up magazines of provisions, destroying the corn, &c. Besides, what must remove every doubt on this subject, Agricola, an exact and judicious writer, in his treatise on subterraneous animals, gives a description of both these animals, and distinguishes them so clearly, that it is impossible to confound them \*. Hence we may conclude, that the hamster and zifel are very different species, and perhaps as remote from each other as the weasel from the rat.

## V.

\* Istius (viverrae scilicet) ferocitatis est etiam agri vastator et cereris hostis *hamster*, quem quidam *cricketum* nominant.— Existit iracundus et mordax.— In terrae cavernis habitat non aliter atque cuniculus, sed angustis, et idcirco pellis qua parte utrinque coxam tegit a pilis est nuda. Major paulo quam domestica mustela existit; pedes habet admodum breves: Pilis in dorso color est fere leporis, in ventre niger, in lateribus rutilus; sed utrinque latus maculis albus tribus numero distinguitur. Suprema capitis pars, ut etiam cervix, eundem quem dorsum habet colorem; tempora rutila sunt; guttur est candidum. Caudae quae ad tres digitos transversos longa ut similiter leporis color. Pili autem sic inhaerent cuti ut ex ea difficulter evelli possint. Ac cutis quidem a carne facilius avellitur quam pili ex cute radicibus extrahantur, atque ob hanc causam et varietatem pelles ejus sunt pretiosae; *Georg. Agricol. de anim. subt. pag. 490.*—This description of the hamster, when compared with that of the zifel given by the same author, and which the reader will find in a note on the preceding page, is sufficient to demonstrate that these animals are very different from one another.

## V.

## The ZEMNI, or PODOLIAN MARMOT \*.

IN Poland and Russia there is another animal called *ziemni* or *zemni*, which is of the same genus with the *zifel*, but larger, stronger, and more mischievous. The head is pretty thick, the body slender, and the ears short and rounded. It has four large cutting teeth, which project out of the mouth, the two in the under jaw being thrice as long as the two in the upper. The feet are very short, covered with hair, divided into five toes, and armed with crooked claws. The hair is soft, short, and of a mouse-gray colour. The tail is of a moderate size. The eyes are as small, and equally concealed as those of the mole. Rzaczinski gives it the denomination of the *little earth dog*. This author seems to be the only one who mentions the zemni, though it

\* Podolian marmot, with the cutting teeth of the lower jaw half as long again as those of the upper; eyes very minute, and as much hid in the fur as those of the mole; four toes, and a claw instead of the fifth, on the fore feet; five on the hind; tail short; colour cinereous; size of a squirrel; *Pennant's Synops. of quad.* p. 277.

Zits-jan; *Le Brun, voyag. Moscov. vol. 2. p. 402.*

it be very common in some of the Northern provinces \*. Its natural dispositions and habits are nearly the same with those of the hamster and zifel. It bites cruelly, eats voraciously, and lays waste the corn fields and gardens. It digs a habitation in the earth, and feeds upon grains, fruits, and pot-herbs, of which it lays up magazines in its retreat, where it passes the winter.

VI.

T H E P. O U C.

RZACZINSKI mentions another animal which is larger than the domestic rat, and called *pouch* by the Russians. It digs a retreat in the earth, and lays waste the gardens. This animal was so numerous near Suraz in Volhinia, that the inhabitants were obliged to abandon the culture of their gardens. It is perhaps the same with Seba's *Norwegian rat*, of which he gives a figure and description †.

VII.

\* Reperitur hoc animal in Podolia, Ukraina, Volhinia circa Suraz, Chodaki, Reinki, Mosfezenica, Sezurowee, et alibi; non raro eruitur ab agricolis ibidem vomeribus; *Rzacziński*, *Aust. pag. 325. et 326.*

† Mus ex Norvegia cinereo fuscus; rostro gaudet fuillo, capite

## VII.

## THE PEROUASCA.

RUSSIA and Poland furnish another animal. In the language of the former country it is called *perewiazka*, and in that of the latter *przewiazka* \*, or *girdled weasel*. It is smaller than the polecat, and covered with whitish hair, rayed transversely with several bands of yellowish red. It lives in the woods, and burrows in the ground. Its skin is a beautiful fur.

## VIII.

The SOUSLIK, or CASAN MARMOT †.

IN Casan, and the provinces watered by the Wolga, as far as Austria, there is a small animal called

capite longiusculo, brevibus latisque auriculis, promisso mystace utrinque ad latera narium rigente, dorsum ejus latum et incurvum est, abdomen pendulum, femora grossa, pedum digiti longi acutis unguibus ad fodiendum adaptatis; talparum enim instar in erutis sub terra antris degit; pilus ex dilute cinereo fuscus est; *Seba, vol. 2. p. 64. fig. tab. 63. fig. 5.*

\* Rzaczinski, *Auct.* pag. 328.

† Casan marmot, with short round ears; smooth hair, of

called *souflik* in the Russian language, which furnishes a beautiful fur. In figure and shortness of tail, it has a great resemblance to the short-tailed field mouse. But it is distinguished from the mouse or rat kind by its fur, which is every where interspersed with small spots of a bright and shining white. These spots exceed not a line in diameter, and are placed at the distance of two or three lines from each other. They are more conspicuous, and better defined upon the loins than on the shoulders and head. Mr Pennant, a well known and very able Naturalist, favoured me with one of these souflikes, which had been transmitted to him from Austria, as an animal unknown to the Naturalists. I recognised it to be the same animal with that of which I had a skin in my possession, and of which M. Sanchez \* sent me the following notice: ‘ Great numbers of the rats called Souflikes  
 ‘ are taken in the barks loaded with salt in the  
 ‘ river Kama, which descend from Solikamski,  
 ‘ where there are salt pits, and fall into the  
 ‘ Wolga, above the town of Casan, at the con-  
 ‘ fluence

a yellowish brown colour, marked with faint round spots of white; above and below the eye, a bar of white; face, breast, belly, and legs, of a pale yellow; four toes before, five behind; tail half the length of the body, covered with short hair of the colour of the body; size of a large rat; *Pennant’s Synops. of quad. p. 273.*

*Mus marmota*, sp. 15. *Forster, Hist. Nat. Volgae. Phil. Transf. vol. 57. p. 343.*

\* Formerly physician to the court of Russia.

‘fluence of the Teluschin. The Wolga, from  
 ‘Simbuski to Somtof, is covered with these salt  
 ‘barks; and it is in the lands adjacent to these  
 ‘rivers, as well as in the barks, where the souf-  
 ‘liks are taken. They have obtained the deno-  
 ‘mination of *souslik*, which signifies *nice-tasted*,  
 ‘because they are extremely fond of salt.’

## S U P P L E M E N T.

I now give a figure of this animal, which is not in the original work. Prince Galitzin, at the desire of M. de Buffon, was so obliging as to send eight soufliks, with the necessary precautions for preserving them alive, till they should arrive in France. These eight animals arrived in Petersburg, after a long journey from Siberia. But, notwithstanding all the attention paid to them, they died in passing from Petersburg to France. The instructions from Siberia were, to feed them only with grain or hempseed; to give them as much air as possible; to put a considerable quantity of sand in their cage, because, in their natural state, they burrow in light soils.

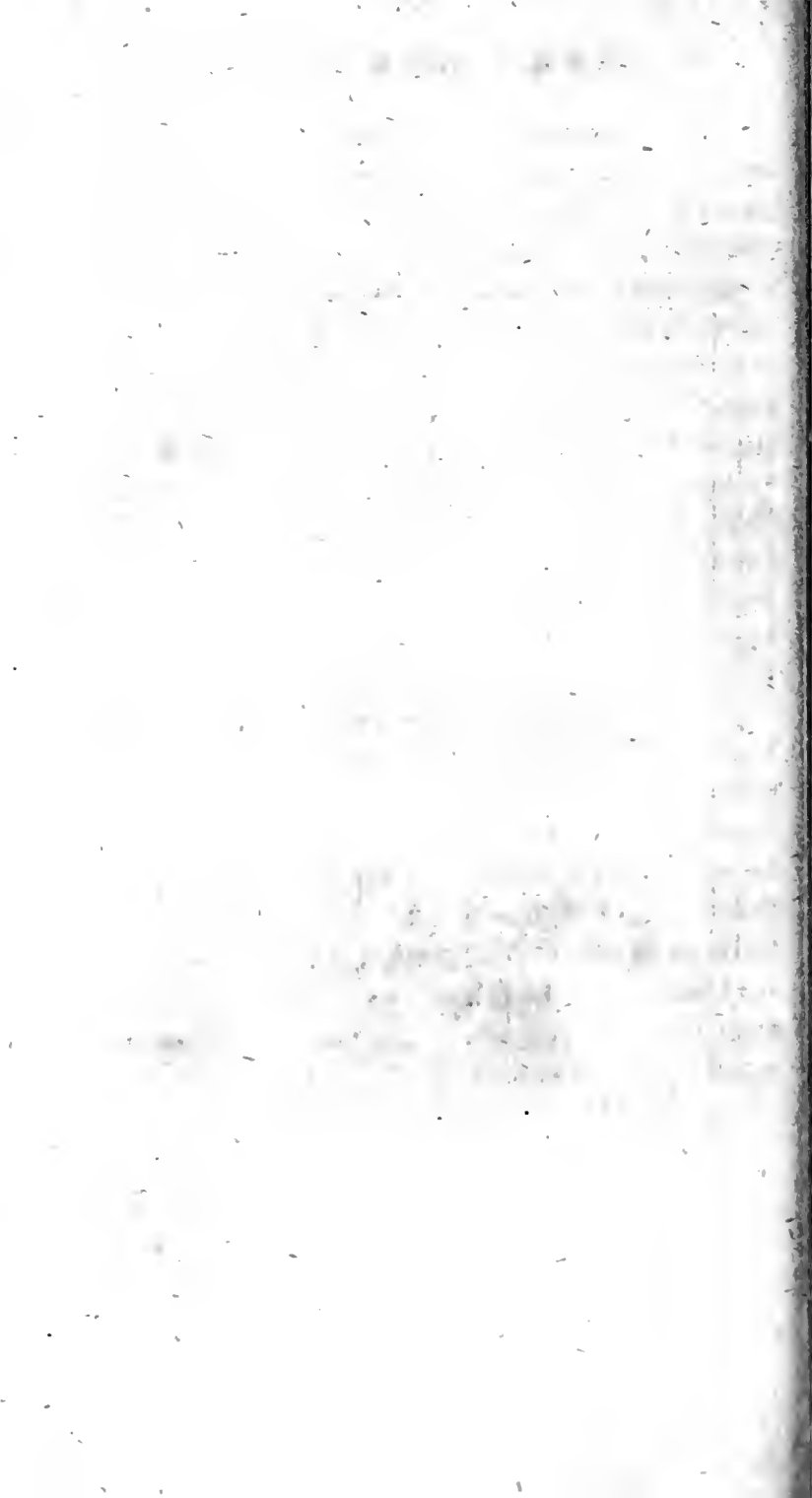
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Plate CCXCVI.



*Abell Sculp<sup>r</sup>*

SOUSLIK.





These animals generally dwell in the deserts, and dig holes in the declivities of mountains, provided the earth be blackish. Their holes are not of equal depths, and are seven or eight feet long, never straight, but winding, and have from two to five entries, the distances of which are unequal, being from two to seven feet asunder. In these holes they make different apartments, and amass in them their winter provisions during the summer. In the cultivated fields, they collect ears of corn, pease, lint, and hemp seeds, and place them separately in different departments of their holes. In uncultivated lands, they collect the seeds of various herbs. During summer, they feed upon grains, herbs, roots, and young mice; for, when the mice are large, the fouslik is unable to kill them. Beside their magazines of provisions, these animals dig separate holes some feet distant from the former, in which they repose. They throw all their ordure out of their retreats. The females bring forth from two to five young at a litter, which are blind and naked, and begin not to see till after the hair appears. The time of gestation is not exactly known.

## I X.

## The SIBERIAN, or GILDED MOLE \*.

IN Siberia, there is a mole called the *gilded mole*, whose species is probably different from the common kind ; because it wants the tail, has a very short muzzle, the hair mixed with green and a gold-colour, and only three toes on the fore feet, and four on those behind, while the common mole has five toes on all the feet. We are ignorant of the proper name of this animal.

## X.

## The WHITE WATER RAT.

THE water rat of Europe is found in Canada ; but its colours are different. It is brown on the back ;

\* Siberian mole, with a very short nose ; no ears ; three toes on the fore feet, on the outmost toe a very large claw ; four toes on the hind feet ; body of an equal thickness ; rump quite round ; no tail ; of a beautiful green and gold colour, variable with the light ; *Pennant's Synops. of quad. p. 313.*

Talpa

back ; and the rest of the body is white, and in some places yellow. The head, muzzle, and end of the tail are white. The hair is softer and more glossy than that of our water-rat. But, in every other article, these animals are perfectly similar, and undoubtedly belong to the same species. The white hair is an effect of cold ; and it is probable, that white water-rats may be found in the North of Europe, as well as in Canada.

## X I.

## THE GUINEY HOG\*.

THOUGH this animal differs from the common hog in some characters, I presume that it is

*Talpa Sibericus varicolor, Aspalax dictus; Seb. Mus. tom. 1. p. 51. tab. 32. fig. 4. 5. Klein quad. p. 60.*

*Talpa Asiatica, ecaudata, palmis tridactylis; Linn. Syst. Nat. p. 73.*

*Talpa ecaudata, ex viridi aurea, pedibus anticis tridactylis, posticis tetradactylis; Brisson. quad. p. 206.*

\* Hog with a lesser head than the common kind ; very long, slender, and sharp pointed ears ; tail hanging down to the heels, without hairs ; the body covered with short red shining hairs, but about the neck and lower part of the back a little longer ; no bristles ; a domestic variety of the common kind ; *Pennant's Synops. of quad. p. 69.*

Porcus

is the same species, and that these differences are only varieties produced by the influence of climate. Of this we have an example in the Siam hog which likewise differs from that of Europe; and yet it is unquestionably the same species, since they intermix and produce together. The Guiney hog is nearly of the same figure with ours, and of the same size with the Siam hog, that is, smaller than the wild boar, or the domestic hog. It is an original native of Guiney, and has been transported to Brasil, where it has multiplied prodigiously. It is domestic, and perfectly tame. It has short, red, shining hair, and no bristles, even on the back. The neck and crupper, near the origin of the tail, are covered with longer hairs than those on the rest of the body. Its head is not so large as that of the European hog, from which it differs in the figure of the ears, which are very long, sharp-pointed, and lie back upon the neck. Its tail is also much longer, reaching near the ground, and entirely destitute of hair. This race, which, according to Marcgrave, is peculiar to Guiney, is found likewise in Asia, and particularly in the island of Java \*, from whence

they

Porcus Guineensis; *Marcgrave, Brasil. p. 230. Raii Synops. quad. p. 96.*

Sus porcus, dorso postice fetoso, cauda longitudine pedum; *Linn. Syst. Nat. p. 103.*

\* In the island of Java the hogs have no bristles; and they are so fat, that their bellies drag upon the ground; *Voyage de Mandello, tom. 2. p. 349.*

they seem to have been transported by the Dutch to the Cape of Good Hope\*.

## XII.

The ETHIOPIAN, or CAPE VERD BOAR †.

IN the neighbourhood of Cape Verd, there is another hog or boar, which, from the number  
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\* The hogs which have been brought from Java to the Cape have very short legs; and they are black, and without bristles. Their belly is so large that it nearly reaches the ground. Their lard is not so firm as that of the European hog.—Their flesh is extremely good; *Descript. du Cap. de Bonne esperance, par Kolbe, tom 3 p. 48.*

† Ethiopian hog with small tusks in the lower jaws; very large ones in the upper, in old boars, bending up towards the forehead in form of a semicircle; no fore teeth; nose broad, depressed, and almost of a horny hardness; head very large and broad; beneath each eye a hollow, formed of loose skin, very soft, and wrinkled; under these a great lobe or wattle, lying almost horizontal, broad, flat, and rounded at the end, placed so as to intercept the view of any thing below from the animal. Between these and the mouth, on each side, a hard callous protuberance; mouth small; skin dusky; bristles disposed in *fasciculi*, of about five each; longest between the ears, and on the beginning of the back, and but thinly dispersed on the rest of the back. Ears large and sharp pointed, inside lined with long whitish hairs; tail slender and flat; does not reach lower than the thighs, and covered with hairs disposed in *fasciculi*; *Pennant's synopsis of quadr. p. 70.*

Engalla;

of his teeth, and the enormous size of the tusks in his upper-jaw, appears to be a peculiar race, if not a different species from that of all the other hogs, and approaches toward the babiroussa. These tusks have a greater resemblance to ivory horns than to teeth. They are half a foot long, five inches in circumference at the base, and bended nearly like the horns of a bull. This character alone is not sufficient to constitute a difference in species. But, what supports this presumption, he likewise differs from all other hogs in the length of the aperture of his nostrils, in the great breadth and figure of his jaws, and in the number and form of his grinders. However, we have seen the tusks of a wild boar, which was killed in the woods of Burgundy, and made an approach to the Cape Verd boar: Its tusks were about three inches and a half long, and four inches in circumference at the base. They had also a double bend, like the horns of a bull. They appeared likewise to consist of solid ivory; and, it is certain, that this boar must have had larger jaws than the common kind.

Hence

Engalla; *Sorranto's voyage in Churchill*, vol. 1. p. 667. *Barbot*, p. 487. *Dampier's voyage*, vol. 1. p. 320.

African wild boar; *Adanson's voyage*, p. 139. *Deslandes Martyns*, *Mem. Acad.* tom. 5. p. 386.

*Sus Æthiopicus*, Hardlooper; *Pallas Miscel. Zool.* p. 16. tab. 11. *Specil. fasc.* 2. p. 1. tab. 1. *Flacourt Hist. Madagasc.* p. 511.

*Sus Æthiopicus*, *sacculo molli sub oculis*; *Linn. Syst. Nat. Append.* tom. 3. p. 223.

Hence we may presume, that the Cape Verd boar is only a simple variety, a particular race, in the species of the common hog.

## S U P P L E M E N T.

We formerly suggested, that the wild boar of Cape Verd appeared to be a different race, and perhaps a different species from all the other hogs. The celebrated M. Allamand, professor of Natural History at Leyden, was kind enough to send us an engraving of this animal, and afterwards wrote M. Daubenton in the following terms :

‘ I believe, Sir, that the wild boar represented in the plate which I sent you, is the same with that pointed out by you under the denomination of the *Wild Boar of Cape Verd*. This animal is still living (May 5. 1767) in the menagery of the Prince of Orange. I visit him occasionally, and always with fresh pleasure. I cannot help admiring the singular form of his head. I have written to the Governour of the Cape of Good Hope, begging him, if possible, to transmit me another. But of this I have little hope ; because, even at the Cape, it was regarded as a monster, which had never hitherto been seen by any person. If, however, I succeed in my request, I shall send the animal to France, that you and M. de Buffon

‘ may have an opportunity of examining it.  
 ‘ We tried to make the one in our possession  
 ‘ copulate with a sow ; but, as soon as she was  
 ‘ presented to him, he darted upon her with  
 ‘ fury, and tore her to pieces.’

We have copied the engraving transmitted to us by M. Allamand. M. Pallas, and M. Vofmaër have used the same figure, and each of them have given a description of this animal. M. Allamand, in his letter to M. Daubenton, dated at Leyden, October 31. 1766, remarks, that the head is the most singular part of this boar, which chiefly differs from that of our hogs by two uncommon appendixes, in the form of ears, at the side of each eye.

We shall here remark, that the disdain and cruelty, mentioned by M. Allamand, of this wild boar to the sow when in season, seems to prove it to be a different species from our hogs. A farther proof arises from the difference in the form of the head, both external and internal. However, as it approaches the hog much nearer than any other animal, and as it is found not only in the neighbourhood of Cape Verd, but not very distant from the Cape of Good Hope, we shall call it the *African boar*, and give the history and description of it from the writings of Pallas and Vofmaër.

Vofmaër calls it the *wild African boar*, or the *boar with a large snout*, and distinguishes it, with propriety, from the Guiney hog with long  
 pointed



pointed ears, from the American pecari, and from the Indian babirouffa.

‘M. de Buffon,’ he remarks, ‘speaking of a part of the jaws, the tail and feet of a singular wild boar of Cape Verd, preserved in the royal cabinet, says, that it has cutting teeth: But no such teeth appear in our subject.’

Hence M. Vosmaër insinuates, that it is not the same animal. We have seen, however, that M. Allamand and I agree, that this Cape de Verd boar, of which I have had an opportunity of examining a part of the head only, is found, notwithstanding, to be the same large snouted hog which M. Vosmaër said was unknown to all the naturalists.

M. Tulbagh, Governour of the Cape of Good Hope, who transmitted this wild boar to Europe, writes, that it was taken between Caffraria and the country of the great Namaquas, about two hundred leagues from the Cape, and that it was the only one of the species which had been seen there alive. M. Vosmaër likewise received the skin of an animal of the same species, which appeared to differ, in some particulars, from the live animal.

This animal was kept in a cage; ‘and, as I was informed,’ M. Vosmaër remarks, ‘that he was not mischievous, I opened the door of his cage. He came out, without showing any marks of rage. He gaily frisked about in quest of food, and greedily devoured whatever was given him.’

' Having left him alone for a few moments, I  
 ' found him, on my return, busy in digging the  
 ' earth, where, notwithstanding the pavement  
 ' was made of small bricks well cemented, he  
 ' had already made a hole of an incredible size,  
 ' with a view, as we afterwards discovered, to  
 ' reach a common sewer which passed below at a  
 ' great depth. I caused his labour to be inter-  
 ' rupted; and it was not without much trouble,  
 ' and the assistance of several men, that we could  
 ' overcome his resistance, and make him return  
 ' to his cage. His resentment was expressed by  
 ' sharp and mournful cries. He seems to have  
 ' been taken in the African woods when he was  
 ' very young; for he has grown considerably  
 ' since his arrival in Europe, and is still alive  
 ' (1767). He passed the last winter very well,  
 ' though the frost was severe, and he was con-  
 ' fined during the greatest part of that season.

' In agility, he exceeds the hogs of this coun-  
 ' try. He freely allows himself to be stroaked  
 ' with the hand, and even with a stick. He seems  
 ' to be pleased with rough friction; for it was  
 ' by this means that we made him remain quiet  
 ' when the painter drew his picture. When  
 ' provoked or rudely pushed, he retires back-  
 ' ward, always facing the assailant, and shaking  
 ' or striking forcibly with his head. When let  
 ' loose after long confinement, he is very gay,  
 ' leaps, and pursues fallow-deer, and other ani-  
 ' mals. On these occasions, he erects his tail,  
 ' which

' which is commonly pendulous. He emits a  
 ' strong odour, which is not disagreeable; but  
 ' I cannot compare it to any other smell. When  
 ' I stroaked him with the hand, this odour ap-  
 ' proached to that of a new cheese. He eats all  
 ' kinds of grains. His food, when on ship-  
 ' board, was maize, and as much fresh herbage  
 ' as could be procured. But, after he had tasted  
 ' barley and European wheat, with which other  
 ' animals in our menagery are fed, he preferred  
 ' this kind of food, and roots dug out of the  
 ' earth. He was so fond of rye-bread, that he  
 ' followed any person who had a piece of it.  
 ' When he eats or drinks, he supports himself  
 ' on the knees of his fore feet; and he often  
 ' rests in this position. His senses of hearing  
 ' and smelling are very acute; but his sight is  
 ' limited by the smallness and situation of his  
 ' eyes, which prevent his seeing objects around  
 ' him, because they are placed higher and nearer  
 ' each other than in other hogs, and there are  
 ' two large excrescences at the sides and below  
 ' the eyes. He has more sagacity than the  
 ' common hog.

' The figure of the head is terrible. The  
 ' flatness and breadth of the nose, joined to the  
 ' length of the snout, the singular excrescences  
 ' rising from the sides of the eyes, and the  
 ' strong tusks, give to the animal a monstrous  
 ' aspect. The length of the body is about four  
 ' Rhenish feet.

‘ In figure, he makes a near approach to  
 ‘ that of the domestic hog: He appears to be  
 ‘ smaller, his back being flatter, and his legs  
 ‘ shorter.

‘ When compared with other hogs, his head  
 ‘ is deformed both in figure and dimensions.  
 ‘ The muzzle is large, flat, and very hard. The  
 ‘ nose is moveable, a little bended laterally toward  
 ‘ the base, and terminates obliquely. The nostrils  
 ‘ are large, distant from each other, and appear  
 ‘ only when the head is raised. The upper lip  
 ‘ is hard, and thick at the side. Round the tusks  
 ‘ it is prominent and pendulous, forming behind  
 ‘ them a kind of oval cartilaginous protuberance,  
 ‘ which covers the corners of the muzzle.

‘ This animal wants fore teeth both above  
 ‘ and below; but the gums are smooth, rounded,  
 ‘ and hard.

‘ The tusks of the upper jaw are an inch thick  
 ‘ at the base, crooked, and project out of the  
 ‘ mouth five inches and a half, and terminate in  
 ‘ an obtuse point. On the side of each of them  
 ‘ there is a kind of furrow. Those of the un-  
 ‘ der jaw are much smaller, less crooked, and  
 ‘ almost triangular. By continual friction a-  
 ‘ gainst the upper tusks, they appear to be cut  
 ‘ obliquely. We were prevented from exami-  
 ‘ ning the grinders by the furious resistance of  
 ‘ the animal.

‘ In proportion to the head, the eyes are small,  
 ‘ placed higher, and nearer each other and the  
 ‘ ears,

‘ ears, than in the common hog. The iris is of  
 ‘ a deep brown colour, and the cornea white.  
 ‘ The upper eye-lids are garnished with brown,  
 ‘ stiff, erect, and very close ciliae, which are  
 ‘ longer in the middle than at the two sides.  
 ‘ There are no ciliae on the under eye-lids.

‘ The ears are pretty large, more round than  
 ‘ pointed, covered on the inside with close yel-  
 ‘ low hair, and bend back toward the animal’s  
 ‘ body. Under the eyes there is a kind of bul-  
 ‘ bous or glandular sac; and immediately be-  
 ‘ low that, appear two round, flat, thick, and  
 ‘ horizontal excrescences, about two inches and  
 ‘ a quarter in diameter. . . . In a straight  
 ‘ line between these excrescences and the muz-  
 ‘ zle, there is, on each side of the head, a hard,  
 ‘ round, sharp protuberance.

‘ The skin seems to be very thick, filled with  
 ‘ lard in the ordinary places, but flaccid on the  
 ‘ neck, groin, and dewlap. In some places it  
 ‘ appears to be slightly furrowed, unequal, and  
 ‘ as if the upper part of it fell off by intervals.  
 ‘ Thinly dispersed over the body are some tufts  
 ‘ of hairs, consisting of three, four, or five, long-  
 ‘ er and shorter, and placed in a straight line  
 ‘ near one another. The front, and between the  
 ‘ ears, seem to be wrinkled, and are adorned with  
 ‘ very close, white, and brown hairs. From  
 ‘ thence, toward the base of the muzzle, de-  
 ‘ scends a narrow band of black and gray hairs,  
 ‘ which, separating in the middle, fall upon each  
 ‘ side

‘ side of the head. On the nap of the neck,  
 ‘ and the anterior part of the back, the bristles  
 ‘ are longest and closest : Their colour is a  
 ‘ dusky brown and gray. Some of them are  
 ‘ seven or eight inches long : In thickness they  
 ‘ exceed not those of the common hog, and they  
 ‘ split in the same manner. These bristles are  
 ‘ not straight, but slightly inclined. Upon the  
 ‘ back, their number is so small, that the skin  
 ‘ appears to be naked. The flanks, breast, belly,  
 ‘ sides of the head and neck, are garnished with  
 ‘ small white bristles.

‘ The feet, like those of our hogs, are divi-  
 ‘ ded into two black, pointed hoofs. The tail is  
 ‘ naked, hangs perpendicularly, and terminates  
 ‘ almost in a point.

‘ The colour of the head is blackish ; but  
 ‘ that of the back and belly is a bright reddish  
 ‘ gray.’

Notwithstanding these differences pointed out by M. Vosinaër, and the repugnance which this boar discovered to the sow that was presented to it, I am uncertain whether it is not a variety only of our European hog. This species varies greatly in Asia, Siam, and China. My uncertainty is increased by having found, about thirty years ago, an enormous head of a wild boar that was killed in my own woods, the tusks of which were nearly as large as those of the Cape boar.

Besides,

Besides, M. Comerfon informs me, that there are wild boars in Madagafcar, whose head, from the ears to the eyes, is of the ordinary form; but that below the eyes is a protuberance which gradually tapers to the end of the snout, so that the animal appears to have two heads, the half of the one sunk into the other. The flesh of this hog is slimy and insipid. This information made me suspect, that the animal I had first mentioned under the denomination of the *Wild Boar of Cape Verd*, because its head was brought from the neighbourhood of that Cape, and afterwards called it the *Wild African Boar*, because it exists in the neighbourhood of the Cape of Good Hope, is likewise found in the island of Madagafcar.

*Addition by Professor Allamand.*

M. de Buffon, in his history of the hog, has shown, that he eludes all those methodical distributions into classes and genera, the distinguishing characters of which are derived from particular parts of the body. Though his reasons are not to be answered, they would have acquired additional force, if he had been acquainted with the animal under consideration. It is a wild boar sent from the Cape of Good Hope,

Hope, in the year 1765, to the menagery of the Prince of Orange, which has hitherto been unknown to the Naturalists. Beside the many singularities which make the European hog a detached species, this animal exhibits fresh anomalies, which distinguish him from all the other varieties of the same genus; for the figure of his head is not only different, but he has no cutting teeth, from which most of our Nomenclators have drawn their distinctive characters, though the number of the teeth is by no means uniform, even in our domestic hogs.

To M. Tulbagh, Governour of the Cape of Good Hope, who misses no opportunity of transmitting to Europe the curious productions of that country, we are indebted for this wild boar. In his letter, he remarks, that this animal was taken about two hundred leagues from the Cape, and that it was the first which had ever been seen there alive. The last year, however, he sent another, which is still living; and, in 1767, he transmitted a skin, of which we have only been able to preserve the head. These circumstances seem to indicate, that this animal is not rare in its native country. I know not whether Kolbe means to speak of these boars in the following passage. ‘ In the country occupied by the Dutch, ‘ we rarely meet with *wild hogs*: As there are ‘ few woods, which are their common retreats, ‘ they have no motive to frequent these territo- ‘ ries. Besides, the lions, tigers, and other ra- ‘ pacious



‘pacious animals, prevent the multiplication of  
 ‘the hogs, by devouring great numbers of  
 ‘them\*.’ He adds no description; and, there-  
 fore, no conclusion can be drawn. Besides, he  
 ranks among the number of Cape hogs the large  
 ant-eater, which is an American animal, and has  
 no resemblance to the hog. What credit is due  
 to an author so ill informed?

The body of our African boar resembles that  
 of the European kind: But it differs widely in  
 the form of the head, which is of an enormous  
 size. The most conspicuous objects are the large  
 tusks which spring from each side of the upper  
 jaw, and are directed almost perpendicularly up-  
 ward. They are near seven inches long, and  
 terminate in a blunt point. Two similar tusks,  
 but smaller and thinner, rise from the under-jaw,  
 and apply themselves exactly to the external side  
 of the superior tusks when the mouth is shut.  
 These are powerful arms, which he may use to  
 advantage in his native country, where he must  
 be often exposed to the attacks of carnivorous  
 animals.

His head, which is large and flat before, ter-  
 minates in an ample snout, nearly equal in dia-  
 meter to the breadth of the head, and of a hard-  
 ness which approaches to that of horn. He uses  
 it, like our hogs, in digging the earth. His eyes  
 are small, and situated so far forward in the head,  
 that he can only see straight before him. They  
 are

\* Descript. du Cap de Bonne-esperance, tom. 3. p. 43.

are nearer each other and the ears, than in our European boars. Below the eyes, there is a depression in the skin, which forms a kind of wrinkled sac. The inside of his ears are closely covered with hair. A little lower, and near the side of the eyes, the skin rises and forms two excrescences, which, when viewed at a certain distance, have a perfect resemblance to a couple of ears, being of the same figure and size, and, though not moveable, they lie nearly in the same plane with the fore-head. Still lower, between these excrescences and the tusks, there is a large wart on each side of the head. It is easy to perceive, that a configuration of this kind must give a very singular aspect to the animal. When viewed in front, we think we see four ears upon a head which has no resemblance to that of any known animal, and inspires terror by the largeness of its tusks.

Pallas \* and Vofmaër, who have given good descriptions of this boar, tell us, that, when he arrived in Holland, he was very mild and tame; that, as he had been several months on board the vessel, and had been taken young, he was become almost domestic; but that, when pursued by strangers, he retired slowly backward, and presented his front with a menacing air; and even those who were daily near him were not without apprehensions of danger. One day he con-  
ceived

\* Pallas, *Miscellanea Zoologica*; et ejusdem *Spicilegia Zoologica*, Fasciculus Secundus.

ceived a resentment against his keeper, whom he wounded so desperately in the thigh with his tusks, that the poor man died next day. To prevent similar accidents, he was taken out of the menagery, and so closely imprisoned that nobody could approach him. He died in about twelve months, and his skin is preserved in the Prince of Orange's cabinet. The other one, which is now in the same menagery, is still very young, and his tusks exceed not two inches in length. When allowed to come out of the place where he is confined, he testifies his joy by leaping, bounding, and running with more much agility than our hogs. On these occasions he carries his tail perfectly erect. The inhabitants of the Cape, on account of his swiftness, give him the denomination of *hart looper*, or courser,

This animal unquestionably forms a genus distinct from all the other known races of hogs. Though he resembles them in the body, the want of cutting teeth, and the singular structure of the head, are characters too marked to be ascribed to the influence of climate, especially as there are hogs in Africa which differ from ours by being smaller only. Besides, it would appear that he cannot produce with our hogs. A Guiney sow was presented to him. After smelling her for some time, he pursued her into a narrow place from which she could not escape, and tore her in pieces with his tusks. He afterwards abused a common sow to such a degree, that she was  
carried

carried off, in order to save her from destruction.

It is wonderful that this animal, which, as I formerly remarked, seems not to be rare in its native country, has not been mentioned by any traveller, or at least in terms so vague, that no idea can be formed of it. Flacourt \* tells us, that in Madagascar there are wild boars which have two horns on the side of the nose, resembling two callosities; and that these animals are nearly as dangerous as the wild boars of France. M. de Buffon imagines, that this passage relates to the babiroussa, and perhaps he may be right: But it may, with equal probability, relate to our boar. These horns, which resembled two callosities, may have been the tusks of this boar, as well as those of the babiroussa, though extremely ill described; and what Flacourt adds, that these animals are dangerous, seems to correspond better with our African boar. M. Adamson †, when speaking of a wild boar he saw in Africa, expresses himself in these terms: ‘I saw,’ says he, ‘one of those enormous wild boars peculiar to Africa, and which, I believe, have never been mentioned by any Naturalist. It was black, like the European wild boar, but vastly larger in size. It had four large tusks, the two superior of which bended in a semicircular form toward the front, and had the appearance of horns,’

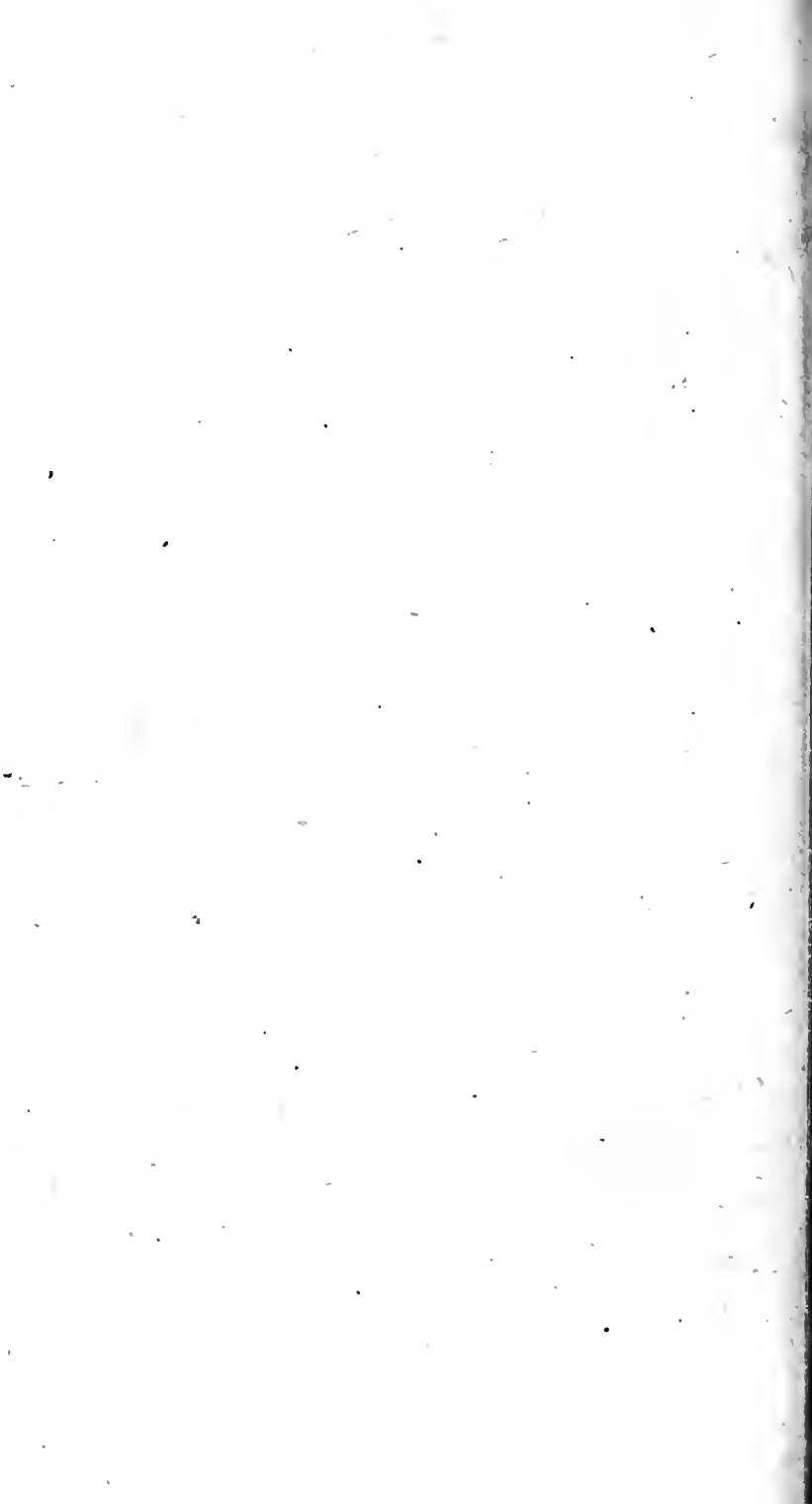
\* Hist. de la grand isle Madagascar, p. 152.

† Hist. Nat. du Senegal, p. 76.



*A. Bell Sculp.*

BOAR OF CAPE VERDE.



'horns.' M. de Buffon supposes, that M. Adanson means to describe the babirouffa; and, were it not for his authority, I should have been led to believe, that M. Adanson intended to point out our African boar; for, if he had the babirouffa under his inspection, I cannot comprehend how he should remark, that it had never been mentioned by any Naturalist. He is too much conversant in Natural History, not to know that the babirouffa has been often described, and that its head is found in almost every Museum in Europe.

But in Africa there is, perhaps, another species of wild boar, with which we are still unacquainted, and was the animal seen by M. Adanson. This conjecture is supported by the description which M. Daubenton has given of a part of the jaws of a Cape Verd wild boar. His remarks clearly prove, that it differs from our boars, and would apply directly to the one under consideration, if there had not been cutting teeth in each of these jaws.

\* \* \* \* \*

I willingly assent to most of M. Allamand's reflections. But I persist in believing, as he himself at first believed, that the Cape Verd boar which I mentioned, and the jaws described by M. Daubenton, belong to the same species, tho'

the former had no cutting teeth; for in no animal is the number and order of the teeth so various as in the hog kind. This difference alone seems not sufficient to constitute two species of the African wild boar and that of Cape Verd, especially as all the other characters of the head appear to be the same.

## XIII.

## THE MEXICAN WOLF\*.

AS the wolf is a native of cold climates, he must have passed into America by the northern lands,

\* Wolf with a very large head; great jaws; vast teeth; on the upper lips very strong bristles, reflected backwards, not unlike the softer spines of a porcupine; and of a gray and white colour; large erect cinereous ears; the space between marked with broad tawny spots: The head ash-coloured, striped transversely with bending dusky lines; neck fat and thick, covered with a loose skin, marked with a long tawny stroke: On the breast is another of the same kind: Body ash-coloured, spotted with black; and the sides striped, from the back downwards, with the same colour; belly cinereous; tail long, of the colour of the belly, tinged in the middle with tawny; legs and feet striped with black and ash colour: Sometimes this variety is found white; *Pennant's synopsis of quadr. p. 151.*

Xoloicuintli; *Hernand. Mex. p. 479.*

Cuetylachtli, seu lupus Indicus; *Fernand. Ann. Nov. Hisp. p. 7.*  
Canis



lands, being found equally in both continents. We have mentioned black and gray wolves in North America. It appears that this species is diffused as far as New Spain and Mexico; and that, in this warm climate, it has undergone some alterations, without changing its nature or dispositions; for the Mexican wolf has the same figure, appetites, and habits as the European or North American wolf; and all of them appear to be the same species. The Mexican wolf is rather the wolf of New Spain, where he is more common than in Mexico, has five toes on his fore feet, and four on those behind. His ears are long and erect; and the eyes sparkle like those of our wolf. But the head is twice as large, the neck thicker, and the tail less bushy. Above the mouth, there are some bristles as large, but not so stiff, as those of the hedge-hog. Upon an ash-coloured ground, the body is marked with some yellow spots. The head is of the same colour with the body, and marked with transverse brownish lines, and the front is spotted with yellow. The ears are gray, like the head and body. There is a long yellow spot on the neck, another on the breast, and a

R 2

third

*Canis cinereus, maculis fulvis variegatus, taeniis subnigris a dorso ad latera deorsum hinc inde deductis; Brisson quadr. p. 172.*

*Canis Mexicanus, cauda deflexa, laevi, corpore cinereo, fasciis fuscis maculisque fulvis variegato; Linn. Syst. Nat. p. 69.*

third on the belly. On the flanks are transverse bands from the back to the belly. The tail is gray, with a yellow spot in the middle. The legs are barred with gray and brown. This is the most beautiful of all wolves, and its skin should be esteemed for its variety of colours \*. But nothing indicates it to be a different species from the common kind, which varies from gray to white, from white to black, and a mixture of both, without changing its species : And we learn from Fernandes, that these wolves of New Spain vary like the European wolf ; for, even in this country, they are not all marked according to our description, some of them being of a uniform colour, and even totally white †.

## XIV.

\* It might be supposed, on account of the variety of colours, that the Mexican wolf is a lynx, which, like the wolf, is found in both Continents. But a bare inspection of the figure given by Recchi will show, that it has a perfect resemblance to the wolf, and none at all to the lynx.

† Cuetlachtli, seu lupus Indicus Jo. Fabri. Xoloitscuintli. Forma, colore, moribus, et mole corporis lupo nostrati similis est, atque adeo ejus (ut mihi quidem videtur) speciei, sed ampliori capite. Tauros vero sicut et nostras lupus aggreditur, et interdum etiam homines ; reperiuntur nonnulli candentes. — Vivit in calidis Novae Hispaniae locis ; *Fernand. Hist. Anim. Nov. Hisp. p. 7.*

## XIV.

## T H E A L C O.

WE formerly remarked, that, in Peru and Mexico, before the arrival of the Europeans, there were domestic animals called *alco*, which were nearly of the same size and dispositions with our small dogs; and that, from this conformity, and because they were equally faithful and attached to their masters, the Spaniards gave them the name of *Mexican* or *Peruvian dogs*. The species of these animals, indeed, seems not to differ essentially from that of the dog. Besides, the word *alco* might, perhaps, be a generic and not a specific term. Recchi has left us a figure of one of these *alcos*, which, in the Mexican language, was called *Itzcuinte Porzotli*. It was prodigiously fat, and probably degraded by its domestic state, and by too much nourishment. The head is represented to be so small that it has no proportion to the size of the body. Its ears are pendulous, which is another mark of slavery. The muzzle resembles that of a dog; the fore part of the head is white, and the ears are pretty yellow. The neck is so short, that there is no interval between the head

and shoulders. The back is arched, and covered with yellow hair. The tail is white, short, and pendulous, and descends no lower than the thighs. The belly is large, tense, and marked with black spots. It has six conspicuous paps. The legs and feet are white; and the toes, like those of the dog, are armed with long sharp claws \*. Fabri, who gives this description, concludes, after a long dissertation, that this animal is the same with the *alco*; and I believe his conclusion is well founded. But this appellation must not be regarded as exclusive; for there is another race of dogs in America to which it applies with equal propriety. Beside the dogs, Fernandes remarks, which the Spaniards transported from Europe to America, there are three other species, which are pretty similar to ours, both in their nature and dispositions; neither is their figure altogether different. The first and largest of these American dogs is called *Xoloizt-cuintli*. He is often three cubits long; and, what is remarkable, he is totally destitute of hair, and only covered with a soft close skin, marked with yellow and blue spots. The second is covered with hair, and of the size of our small Maltese dogs. He is marked with  
white,

\* Ytzcuinte porzotli. Canis Mexicana. — Ad unguem animal quod hic prostat, nanum, pingue, et mansuetum effigiatum mihi videtur illud esse quod Americani nomine communi Alco vocabant; *Hernand. Hist. Mex. p. 465. et 478. fig. p. 466.*

white, black, and yellow. His deformity, though singular, is not disagreeable: His back is arched; and his neck so short, that his head seems to proceed immediately from the shoulders. He is named in his own country *michuacanens*. The third, which likewise resembles our small dogs, is called *techichi*. But he has a wild and melancholy aspect. The Americans eat his flesh\*.

From comparing the testimonies of Fabri and Fernandes, it is obvious, that the second dog, which this last author calls *michuacanens*, is the same with the *ytzcuinte porzotli*, and that this species of animal existed in America before the arrival of the Europeans; and the same must have been the case with the *techichi*. I am persuaded, therefore, that the word *alco* was a generic name, which applied equally to both, and perhaps to other races or varieties that we are unacquainted with. But, as to the first, Fernandes seems to have been deceived both with regard to the name and the animal. No author mentions naked dogs in New Spain. This race, commonly called *Turkish dogs*, come from India, and other warm climates of the Old Continent; and, it is probable, that those seen in America by Fernandes, had been transported thither, especially as he mentions his having seen this kind in Spain, before his departure for America. The proof is still farther corroborated

\* Fernand. Hist. Anim. Nov. Hisp. p. 6. cap. 20. et p. 10. cap. 21.

rated by the circumstance of this animal's having no American name: Fernandes gives it the borrowed one of *Xoloitzcuintli*, which is the name of the Mexican wolf. Thus, of these three species or varieties of American dogs, there remain only two, which are called indiscriminately *alco*; for, independent of the fat *alco*, which served as a lap-dog to the Peruvian ladies, there was a meagre and melancholy *alco*, which was employed in the chase; and, it is by no means impossible, that the three races, apparently different from those of our dogs, spring from the same stock. The dogs of Lapland, Siberia, Iceland, &c. must have passed, like the foxes and wolves, from the one Continent to the other, and degenerated by the influence of the climate and a domestic state. The first *alco*, with the short neck, approaches the Iceland dog; and the *teckichi* of New Spain is, perhaps, the same animal with the *koupara*\*, or *crab-dog* of Guiana, which in figure resembles the fox, and in hair the jackal. He has been called the *crab-dog*, because he chiefly lives upon crabs and other crustaceous animals. I have seen only one skin of this Guiana animal; and I am unable to determine whether it is a particular species, or whether it should be referred to those of the dog, fox, or jackal.

## XV.

\* *Canus ferus, major, canerofus, vulgo dictus koupara; Barrère, Franc. Equin. p. 149.*

## XV.

## THE TAYRA, GALERA, OR GUINEY WEASEL\*.

THIS animal, of which Mr Brown has given a figure and description, is of the size of a small rabbit, and has a considerable resemblance to the weasel or martin. He digs an habitation in the earth, and has great strength in his fore-feet, which are much shorter than those behind. His muzzle is long, a little sharp, and garnished with whiskers. The under jaw is much shorter than the upper. He has six cutting and two canine teeth in each jaw, without reckoning the grinders. His tongue is rough, like that of the cat. His head is oblong, as well as the eyes, which last are placed at an equal distance between the ears and the point of the muzzle. His ears are

\* Guiney weasel, with the upper jaw much longer than the lower; eyes placed mid-way between the ears and tip of the nose; ears like the human; tongue rough; tail declining downwards, lessening towards the point; feet strong, and formed for digging; shape of the body like that of the rat; size of a small rabbit; of a dusky colour; the hair rough; Pennant's *synops. of quad.* p. 225.

Galera subfufca, cauda elongata, auribus subnudis appreflis; Brown's *Hift. of Jamaica*, p. 485. tab. 49.

are flat, and resemble those of man. His feet are strong, and adapted for digging. The metatarsal bones are long; and he has five toes on all his feet. His tail is long, and tapers to a point. His body is oblong, and has a great resemblance to that of a large rat. He is covered with brown hairs, some of which are longer than others. This animal appears to be a small species of martin or polecat. Linnaeus imagined, that the black weasel of Brasil might be the *galera* of Mr Brown; and, indeed, the two descriptions afford some reason for the conjecture\*. Besides, this black weasel of Brasil is likewise found in Guiana, where it is called *tayra* †; and I suspect that the word *galera* is a corruption

\* *Mustela atra collo subtus macula alba triloba. Habitat in Brasilia. . . . Holmens. Confer. Brown, Jam. 485. tab. 49. fig. 1. Galera, statura martis, at nigra, pilis rigidioribus, auriculae rotundae villosae. Arca ante oculos cinerascens, maculae sub medio collo non vero sub gula. Mammae pone umbilicum quatuor.—Nota. Mr Brown says, that he saw only two paps on the lower part of the belly; but the other two might escape his observation. He also says, that the galera is found in Guiney, and the black weasel in Brasil. But this assertion ought not to stumble us; for it happens daily, that Brazilian animals are first transported to Guiney, and afterwards pass for animals belonging to that country; and *vice versa*. I agree, therefore, with Linnaeus, in thinking that the galera of Mr Brown is the same animal with the black weasel of Brasil.*

† *Mustela maxima atra, moschum redolens. Tayra. Grosse belette. This animal, by rubbing itself against trees, leaves a kind of unctuous humour which has a strong odour of musk; Barrère, Franc. Equin. p. 155.*



corruption derived from *tayra*, which is the true name of this animal.

## XVI.

## THE MERIAN OPOSSUM\*.

THIS animal is a native of the same climate, and belongs to a neighbouring species with the other opossums. Sibilla Merian is the first writer who has given a figure and a short account

\* Merian opossum, with long, sharp pointed, naked ears; head, and upper part of the body, of a yellowish brown colour; the belly white tinged with yellow; the fore feet divided into five fingers; the hind into four and a thumb, each furnished with flat nails; tail very long, slender, and, except at the base, quite naked; *Pennant's synopsis of quadrupeds*, p. 210.

Dezak; *Merian. Insect. Surinam*, p. 66. tab. 66.——*Merian* is the name of a German painteress, who first discovered this species at Surinam.

*Mus sylvestris Americanus*; *Seb. Mus. tom. 1. p. 49. tab. 31. fig. 5.*

*Philander ex rufo helvus in dorso, in ventre ex flavo albicans*; *Briffon quadruped. p. 212.*

*Mus sylvestris Americanus, catulos in dorso gerens*; *Klein quadruped. p. 58.*

*Didelphis dorsifera, cauda basi pilosa, corpore longiore, digitis manuum muticis*; *Linn. syst. nat. p. 72.*

*Le Philandre de Surinam*; *Buffon.*

count of it \*. Seba afterwards gave Merian's figure for the female, and added a new figure for the male, with a kind of description. This animal, says he, has very brilliant eyes, which are surrounded with a circle of deep brown hair. The body is covered with soft hair, or rather wool of a reddish yellow colour, but of a bright red on the back. The front, muzzle, belly, and feet, are whitish yellow. The ears are naked, and pretty hard. On the upper lip, and also above the eyes, there are long hairs in the form of whiskers. Its teeth, like those of the dormouse, are very sharp. Upon the tail of the male, which is naked, and of a pale red colour, there are dusky red spots, which appear not on the tail of the female. The feet resemble the hands of an ape; those before have the four toes, and the thumb garnished with short, blunt, nails; but on the hind feet the thumb alone has a flat, blunt nail, the other four toes being armed with small sharp claws. The young of these animals grunt nearly in the same manner as a pig. The paps of the female resemble those of the murine opossum. Seba properly remarks, that, in the figure

\* Hic genus gliris sylvestris depictum est, qui catulos quorum vulgo quinque vel sex una foetura enitur in dorso secum portat; ex flavo fusci coloris, at subucula ejus alba est: Cum antra exeunt alimenti causa, a catulis circum curruntur, qui jam satiri vel molestias suspicantes, illico matris dorsum ascendunt, et caudas suas parentum caudis involvunt, qui illos statim in antra apportant; *Mar. Sibil. Merian. Insect. Surinam. p. 66. fig. tab. 66.*

figure given by Merian, the feet and toes are ill represented \*. The females produce five or six at a litter. The tail is very long, and prehensile, like that of the sapajous. The young mount upon the back of the mother, and adhere firmly with their tails twisted round hers. In this situation she carries them about with great nimbleness and security.

## XVII.

## THE AKOUCHI, or OLIVE CAVY.

THE akouchi is pretty common in Guiana and other parts of South America. It differs from the agouti by having a tail, which is wanting in the agouti. The akouchi is generally smaller than the agouti, and its hair is not red, but of an olive colour †.

These are the only differences we know between the akouchi and agouti, which, however, seem to be sufficient to constitute two distinct species.

S U P-

\* Seba, vol. 1. p. 49. tab. 21. fig. 4.

† Cuniculus minor, caudatus, olivaceus; *Akouchi*, Barrère, *hist. nat. de la Fr. Equin.* p. 153.

## S U P P L E M E N T.

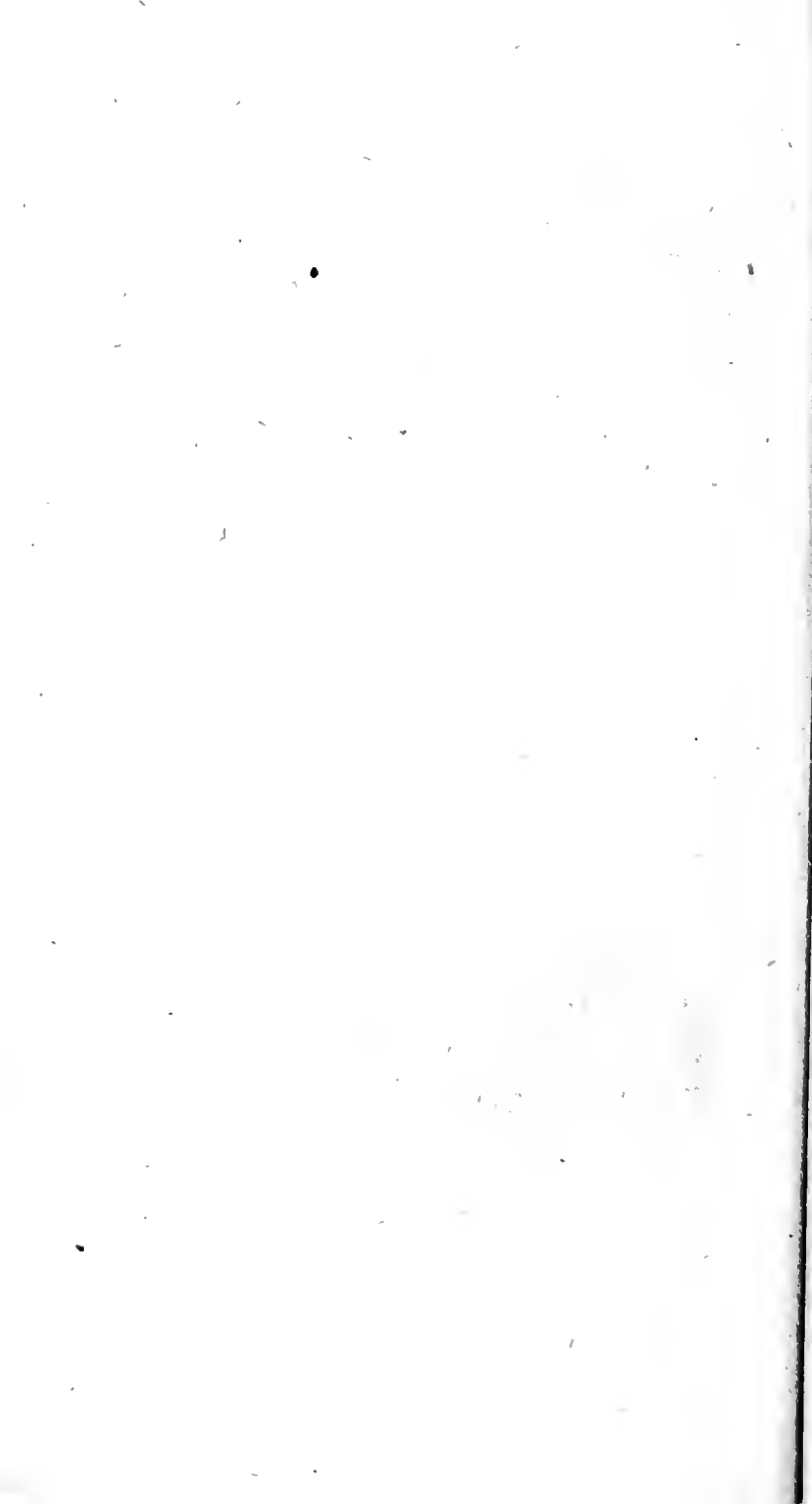
In the original work we remarked, that the akouchi was a different species from the agouti ; because the former had a tail, and the latter had no tail. The akouchi differs from the agouti still more in magnitude, being no larger than a young rabbit of six months old. The akouchi is found only in extensive woods. He feeds on the same fruits, and has nearly the same manners with the agouti. In the islands of Saint Lucia and Grenada he is called *agouti*. His flesh is white, and has the flavour of a young rabbit ; and he is ranked amongst the finest game in South America. When the akouchis are pursued by dogs, rather than take the water, they allow themselves to be seized. M. de la Borde informs us, though I doubt the fact, that the females produce only one, or at most two young, at a litter. They are easily tamed, and have a small cry like that of the Guiney pig ; but it is seldom heard.

We have given a figure of this animal, drawn from a well preserved skin. Messrs Aublet and Olivier assure me, that, in Cayenne, the hare is called *agouti*, and the rabbit *akouchi* ; but that the agouti is the best food ; and, speaking of the game of this country, they inform me, that  
the



*A. Bell sculp.*

ACOUHL.



the armadillos are still better food, except the nine-banded armadillo, which has a strong smell of musk; that, after the armadillos, the paca is the best game, because its flesh is wholesome and fat: The next in order are the agouti and akouchi. They likewise maintain, that the red cougar is used as food, and that its flesh has the taste of veal.

## XVIII.

## The TUCAN, or MEXICAN SHREW\*.

FERNANDES has given the name of *Tucan* to a small quadruped of New Spain, whose size, figure, and natural habits, make it approach nearer to the mole than to any other species. It appears to be the same animal described by Seba under the denomination of the *red mole* of America †; at least, the descriptions of the two authors

\* Mexican shrew, with a sharp nose; small round ears; without sight; two long fore teeth above and below; thick, fat, fleshy body, short legs, so that the belly almost touches the ground; long crooked claws; tawny hair; short tail; length from nose to tail, nine inches; *Pennant's Synops. of quad.* p. 310.

† Seba, vol. 1. p. 51. tab. 32. fig. 2.

authors correspond sufficiently to justify this conjecture. The tucan is perhaps somewhat larger than our mole. It is equally fat and fleshy, and its legs are so short that the belly touches the ground. The tail is short; the ears are small and round; and the eyes are so minute that they can scarcely be of any use to the animal. But it differs from the mole in the colour of the hair, which is reddish yellow, and in the number of toes, having only three before and four behind, while the mole has five toes on all the feet. It seems to differ from the mole in other articles: Its flesh is good eating. It possesses not the instinct of discovering its retreat after having once left it, but, at every time, is obliged to dig a new hole; so that, in certain soils, which are agreeable to these animals\*, the holes are so numerous, and so near each other, that circumspection is necessary to walk there with safety.

XIX.

\* Fernand. hist. anim. Nov. Hisp. p. 9. cap. 24.



## XIX.

## The BRASILIAN SHREW\*.

We mention this animal under the denomination of the *Brasilian shrew*; because we are ignorant of its proper name, and it has a greater resemblance to the shrew than to any other animal. It is, however, considerably larger, being about five inches long from the extremity of the muzzle to the origin of the tail, which is not two inches, and, consequently, is proportionally shorter than that of the common shrew. It has a pointed muzzle, and very sharp teeth. Upon a brown ground-colour, three pretty large black bands extend longitudinally from the head to the tail, under which the scrotum appears hanging between the hind feet. This animal, says Marcgrave, sports with the cats, who discover no inclination to eat it. In the same manner, the cats kill the European shrews, but never eat them.

VOL. VIII.

S

THE

\* Brazilian shrew, with a sharp nose and teeth; pendulous scrotum. It is of a dusky colour, marked along the back with three broad black strokes. The length from nose to tail, five inches; that of the tail two; *Pennant's Synopsis of quad. p. 309.*

*Mus araneus figura muris; Marcgr. Brasil. p. 229*

## XX.

## THE ROCK CAVY\*.

THIS animal, which is a native of Brasil, is neither a rabbit nor a rat, but seems to partake of both. It is about a foot long, by seven inches in circumference. Its general colour is the same with that of our hares; and its belly is white: Its upper lip is divided in the same manner, and it has the same large cutting teeth, and whiskers round the mouth and on the sides of the eyes. But its ears are rounded like those of the rat, and so short that they exceed not the height of a finger's breadth. The fore legs are not above three inches in length, and those behind are a little longer. The fore feet have four toes covered with a black skin, and armed with small short claws. The hind feet have only three toes, and the middle one is the longest. It

\* Rock cavy, with divided upper lip; short ears; four toes on the fore feet, and three on the hind: Colour of the upper part of the body like that of the common hare; belly white: The length one foot; *Pennant's synopsis of quadr.* p. 244.

*Lepus Brasiliensis*, nobis vel *dratte* vel *beskratte*; *Maregr. Brasil.* p. 223. *Piss.* *Brasil.* p. 103. *Raii synopsis quadr.* p. 206.

It has no tail. Its head is somewhat longer than that of the hare, and its flesh is like that of the rabbit, which it resembles in its manner of living \*. It likewise retires into holes: It does not, however, dig the earth, like the rabbit, but conceals itself in the clefts of rocks. Hence it is easily seized in its retreat. It is hunted as game, and its flesh is preferable to that of our best rabbits †. The animal mentioned by Oviedo, and afterwards by Charlevoix ‡ and du Perrier de Montfraizier, under the denomination of *cori*, appears to be the same with the *aperea* or rock cavy ||. In some parts of the West Indies, these animals may, perhaps, be reared in warrens, or in houses, like our rabbits; and this may be the reason why some of them are red, white, black, and variegated. This conjecture is not without foundation; for Garcilasso informs us, that, in Peru,

S 2

there

\* Marcgrav. hist. nat. Brasil. p. 223.

† Piso, hist. Brasil. p. 103.

‡ Oviedo remarks, that the *cori* resembles a small rabbit; and that some of them are totally white, and others a mixture of different colours; *Hist. de St Dominique, par le P. Charlevoix, tom. 1. p. 35.*

|| The *cori* is a small quadruped, somewhat resembling our rabbits and moles. It has small ears, which it carries so flatly reclined backward, that it is difficult to perceive them. It has no tail. Some of them are white, others black, and others spotted with black and white. Some of them are totally red, and others spotted with red and white. They are tamed, and never defile the houses. They eat herbage, and are easily maintained. Their flesh has the taste and flavour of the best rabbits; *Hist. des voyages, par du Perrier de Montfraizier, p. 343.*

there are wild and domestic rabbits which have no resemblance to those of Spain\*.

## XXI.

## THE TAPETI, or BRASILIAN HARE †.

THE tapeti ‡ seems to make a near approach to the species of the hare or rabbit. It is found in Brasil, and many other parts of America. In figure, it resembles the European rabbit; and it resembles the hare in size and colour, only it is a little browner. Its ears are very long, and shaped like those of the hare. Its hair is red on the fore head, and whitish on the throat. Some of them have a white circle  
round

\* Hist. des Incas, tom 2. p. 267.

† Brazilian hare, with very long ears; a white ring round the neck; face of a reddish colour; chin white; black eyes; colour of the body like the common hare, only darker; belly whitish; no tail; some want the white ring round the neck; *Pennant's Synops. of quad.* p. 252.

Tapeti; *Marcgr. Brasil.* p. 223. *Piso, Brasil,* p. 102.

Cuniculus Brasilientis tapeti dictus; *Rait synops. quad.* p. 205.

Lepus Brasilientis, cauda nulla; *Linn. Syst. Nat.* p. 78.

Lepus ecaudatus; *Briffon. quad.* p. 97.

Collared rabbit; *Water's voyage in Dampier.*

‡ *Tapity*, according to P. d'Abbeville; *Miff. au Maragnon,* p. 251.

round the neck ; but others have a white throat, breast, and belly. They have black eyes, and whiskers like our rabbits ; but they want the tail \*. The tapeti resembles the hare in its manner of living, in fecundity, and in the quality of its flesh, which is extremely good. Like the hare, it dwells in the fields or in the woods, and burrows not, like the rabbit †. The animal of New Spain, mentioned by Fernandes, under the name of *citli*, appears to be the same with the *tapeti* ‡ of Brasil ; and both are perhaps only varieties of the European hares, who have passed by the northern lands from the one Continent to the other.

Some other species of animals might be added to the preceding list ; but the accounts given of them are so vague, that I choose rather to confine myself to what is known with some degree of certainty, than to give way to conjecture, or to exhibit creatures of imagination as real species. But, notwithstanding this limitation, intelligent men will easily perceive, that my history of quadrupeds is as complete as they could possibly expect. It comprehends a great number of new animals, and none of those who were formerly known are omitted.

§ 3

The

\* Marcgr. hist. nat. Brasil. p. 223. fig. p. 224.

† Pison, hist. Brasil, p. 102.

‡ Citli.—Lepores novae Hispaniae nostratibus similes forma atque alimento, sed auriculis longissimis pro corporis magnitudine, latissimisque ; Fernandes, hist. anim. nov. Hisp. p. 2. cap. 3.

The preceding notices, though composed of twenty-one articles, contain not above nine or ten distinct species; for all the others are only varieties. The white bear is only a variety of the common kind; the Tartarian cow, of the bison; the Guiney and Cape-Verd hogs, of the common hog, &c. Hence, by adding these ten species to about one hundred and eighty, whose history we have given, the total number of quadrupeds, the existence of which is properly ascertained, exceeds not two hundred species upon the surface of the whole known world.

*ADDITIONS.*

## THE CRAB-EATER\*.

THE name *crab-eater*, or *crab-dog*, has been given to this animal, because crabs are his principal food. He has very little relation to the dog or fox, to which some travellers have compared him. He seems to be more nearly allied to the opossums; but he is much larger, and the female crab-eater carries not her young, like the female opossum, in a pouch under her belly. Hence the crab-eater appears to be a detached species, and different from all those we have formerly described.

In the figure, the long naked, scaly tail, the large thumbs without claws on the hind feet, and

\* Cayenne opossum, with a long slender face; ears erect, pointed, and short; the coat woolly, mixed with very coarse hairs, three inches long, of a dirty white from the roots to the middle; from thence to the ends of a deep brown; sides and belly of a pale yellow; legs of a dusky brown; thumb on each foot distinct; on the toes of the fore feet, and thumb on the hind, are nails; on the toes of the hind feet crooked claws; tail very long, taper, naked, and scaly. Length seventeen inches; that of the tail fifteen and a half. The subject measured was very young; *Pennant's Suppl. of quad. Edit. 2. p. 309.*

*Canis ferus major, Canerofus vulgo dictus. Koupara; Barrère, Franc. Equin. p. 149.*

and the flat claws on the fore feet, are remarkable. This animal, whose skin is preserved in the royal cabinet, was young when it was transmitted to us. It is a male; and the following is a description of it.

The length of the whole body, from the nose to the origin of the tail, is about seventeen inches. Before, it is six inches three lines high, and six inches and a half behind. The tail, which is grayish, scaly, and naked, is fifteen inches and a half long, ten lines in circumference at the origin, and gradually tapers to a point.

As the legs of this animal are very short, he has, at a distance, some resemblance to a terrier. The head is not very different from that of a dog, and exceeds not four inches one line in length, from the point of the nose to the occiput. The eye is not large; the edges of the eye-brows are black; and, above the eye, there are hairs of an inch and a quarter in length. There are similar hairs on the side of the cheek near the ear. The whiskers are black, and about an inch and a half long. The opening of the mouth is near two inches. The upper jaw is armed, on each side, with a crooked canine tooth, which reaches beyond the under jaw. The ear is brown, naked, broad, and round at the extremity.

The hair on the body is woolly, and interspersed with other long stiff black hairs. These  
long



long hairs increase upon the flanks and the spine of the back, which is totally covered with them, and form a kind of mane from the middle of the back to the origin of the tail: They are three inches long, of a dirty white colour from the base to the middle, and afterwards of a dark brown as far as the point. The hair on the sides, as well as on the belly, is yellowish white; but it approaches more to yellow toward the shoulders, and on the thighs, neck, breast, and head, where this yellow tincture is mixed in some places with brown. The sides of the neck are yellow; and the legs and feet are of a blackish brown colour. There are five toes on each foot. The fore foot is an inch and three quarters long, the largest toe nine lines, and the furrowed claw two lines. The toes are a little bended, like those of the rat, the thumb alone being straight. The hind feet are an inch and eight lines long, the largest toe nine lines, and the thumb half an inch. The thumb is thick, broad, and at a distance from the toes, as in the apes. The nail of the thumb is flat; but those of the other toes are crooked, and reach beyond their points. The thumb of the fore foot is straight, and not removed from the other toe.

M. de la Borde informs me, that this animal is very common in Cayenne, and that it always frequents the savannahs, and other marshy places.

‘It climbs trees,’ he remarks, ‘with great dexterity, and continues oftener upon them than on the ground, especially during the day. It has fine teeth, and defends itself against the dogs. Crabs are its principal nourishment, and it is always fat. When unable to draw the crabs from their holes with its foot, it introduces the tail, which it uses as a hook. The crab sometimes lays hold of the tail, and makes the animal cry. This cry has some resemblance to that of a man, and is heard at a great distance. But its ordinary voice is a kind of grunting like a pig. The female produces four or five young at a litter, and deposits them in the hollows of old trees. The natives of the country eat its flesh, which resembles that of a hare. These animals are easily tamed, and they are fed in the houses, like dogs and cats, with all kinds of victuals. Hence their taste for crabs is by no means exclusive.’

It is alledged, that there are two species of crab-eaters in Cayenne. The first is the animal we have already described: The other is not only a different species, but belongs to a different genus. Its tail is totally covered with hair, and it seizes crabs with its paws only. These two animals resemble each other in the head alone; and they differ in the figure and proportions of the body, as well as in the structure of the feet and claws.

ANONYMOUS



*A. Bell Sculp.*

CRAH EATER.



## ANONYMOUS ANIMAL.

WE here give the figure of an undescribed animal, the drawing of which was made by the Chevalier Bruce, who permitted me to copy it. The animal, which we shall call *anonymous*, till we learn its real name, has some similarities to the hare, and others to the squirrel. Mr Bruce gave the following account of it in writing.

‘ In Lybia, on the south side of the lake formerly  
 ‘ called *Palus Tritonides*, there is a very singular  
 ‘ animal, from nine to ten inches long, with ears  
 ‘ nearly as long as the half of the body, and pro-  
 ‘ portionally broad, a circumstance which takes  
 ‘ place in no other quadruped, except the long-  
 ‘ eared bat. Its muzzle resembles that of the  
 ‘ fox; and yet it seems to approach nearer to  
 ‘ that of the squirrel. It lives on the palm-  
 ‘ trees, of which it eats the fruit. It has short  
 ‘ retractile claws, and is a very beautiful crea-  
 ‘ ture. Its colour is white mixed with a little  
 ‘ gray and a bright yellow. The inside of the  
 ‘ ears is naked in the middle only. They are  
 ‘ covered with brown hair mingled with yellow,  
 ‘ and garnished within with large white hairs.  
 ‘ The end of the nose is black, the tail yellow,  
 ‘ and black at the point. The tail is pretty  
 ‘ long;’

‘ long, but of a different form from that of the  
 ‘ squirrel; and all the hair, both on the body  
 ‘ and tail, is very soft.’

## MADAGASCAR RAT.

IN the figure is represented a small animal from Madagascar, which was drawn alive; when in the possession of the Countess of Marfan. It appeared to make a nearer approach to the species of the palm-squirrel than to that of the rat; for I was assured that it frequented the palm-trees. I have not been able to procure farther information concerning this animal. It may be remarked, however, that, as its claws did not project, it seemed to constitute a species very different from that of the rat, and to approach nearer to the palm-squirrel. To this animal may be referred the rat on the south-west coast of Madagascar, mentioned by the Dutch voyagers; for they tell us, that these rats live in the palm-trees, and eat the dates; that their body is long, their muzzle sharp, their legs short, and their tail long and spotted\*. These characters correspond so well with those represented in the figure of our Madagascar rat, as to induce us  
 to

\* Recueil des voyages qui ont servi à l'établissement de la Compagnie des Indes Orientales, tom. 1. p. 413.



*A. Belle Sculp.*

MADAGASCAR RAT.





to believe that the animal formerly mentioned belongs to this species.

It lived several years with the Countess of Marfan. Its movements were extremely brisk, and its cry was nearly similar to that of the squirrel, though much weaker. Like the squirrels, it carried its food to its mouth with the fore paws, erected its tail, and leaped about. It bit desperately, and could not be tamed. It was fed with almonds and fruits. It never came out of its cage, except in the night; and it endured the winters very well in an apartment where the cold was moderated by a small fire.

T H E E N D.

Department of Chemistry

Chicago, Illinois

June 15, 1951

Dear Sir:

I have your letter of June 14, 1951, regarding the

matter of the purchase of the

equipment for the laboratory.

I am sorry that I cannot

reply to you more fully at this time.

I will be glad to discuss the

matter with you in person.

I am, Sir, very respectfully,

Yours very truly,

Robert M. Waymouth

Director

Department of Chemistry

University of Chicago

Chicago, Illinois

Enclosure

[As the COUNT DE BUFFON has observed no systematic order in his *History of Quadrupeds*, the following Index, in which the animals are arranged according to the improved Edition of MR PENNANT's *Synopsis*, will, in some measure, supply that seeming defect.]

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*BUFFON.*

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#### GENUS I. HORSE.

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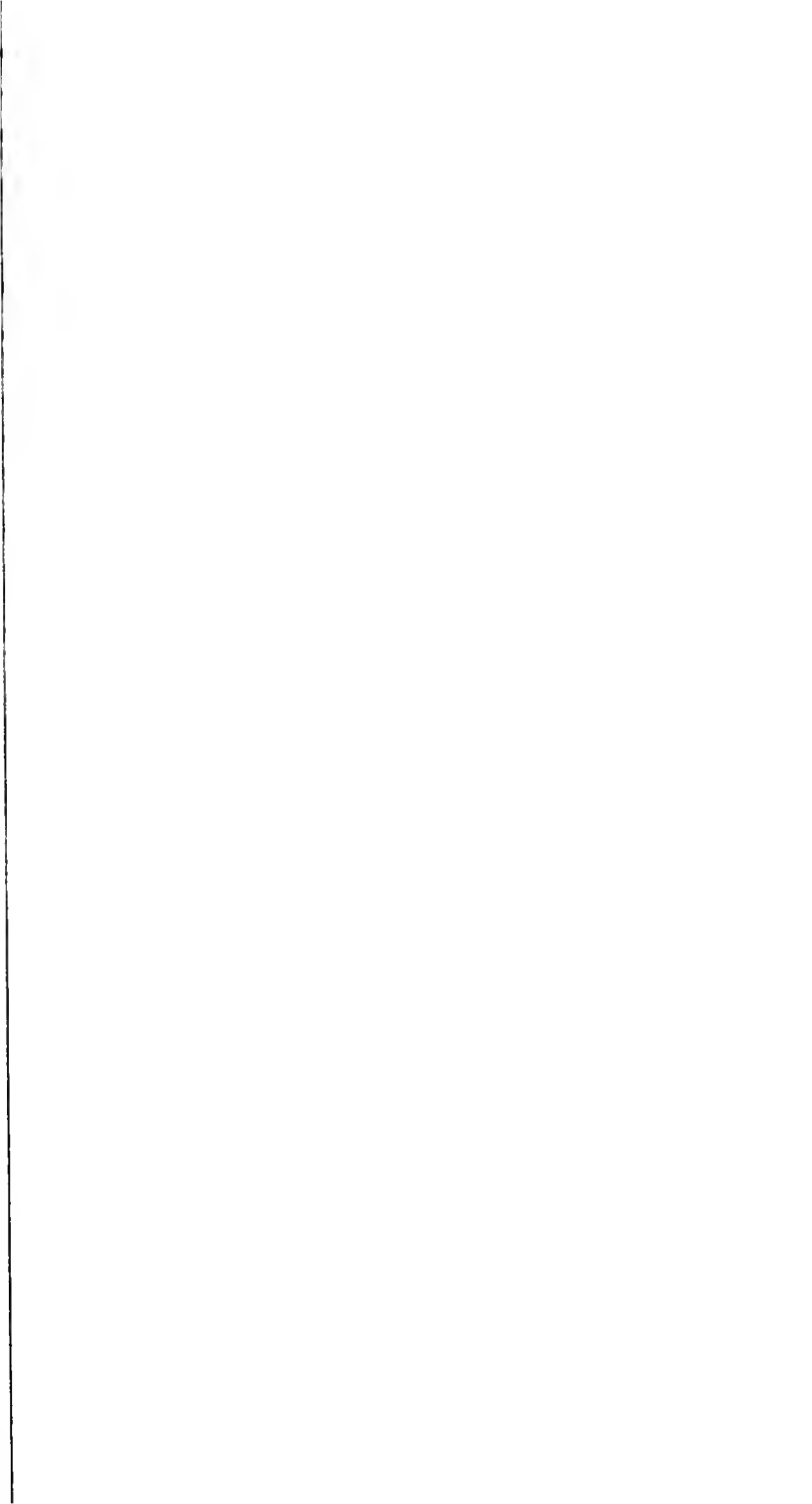
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