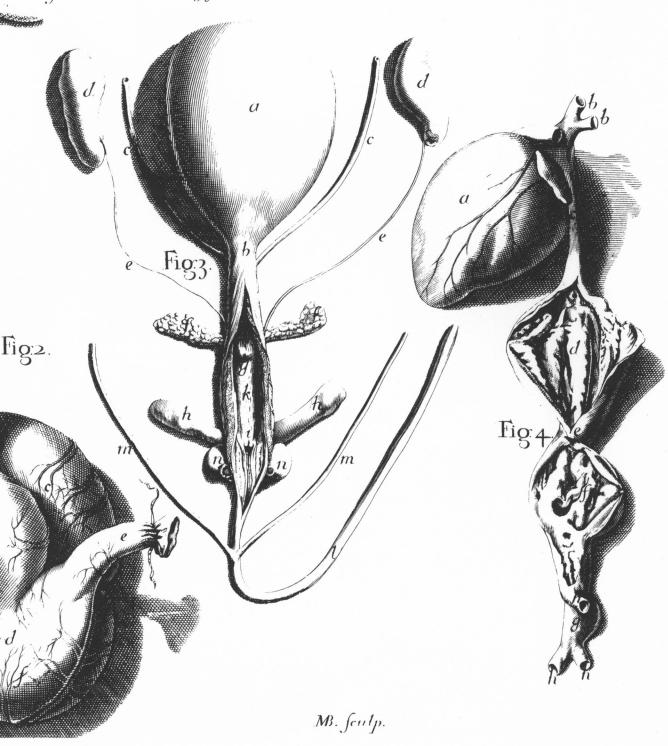


Transact. Number, 153. Tab. 2.



PHILOSOPHICAL

TRANSACTIONS.

November 20. 1683.

The CONTENTS.

Tajacu, seu Aper Mexicanus Moschiferus, or the Anatomy of the Mexico Musk-Hog. By the Learned and Ingenious Edward Tyson M. D. Fellow of the College of Physicians and of the Royal Society. An account of a Book. Recherches Curieuses &c. Curious Researches of Antiquity contained in divers differtations concerning Medalls, Bass-Veleis, Statues, Mosaic-works, and Inscriptions of the Ancients: Enricht with a great number of brass-Cuts. By Monsr. SPON Dr. of Physic. Printed at Lyons 1683. in quarto.

Tajacu seu Aper Mexicanus Moschiferus, or the Anatomy of the Mexico Musk-Hog, &c.

His Animal being so much a stranger to our Nation; and its inward organs, at least some, so odd, and remarkable; I am willing to deliver my observations of it. They are rude, and very inperfect, yet such as they are, I the rather venture abroad, since it may be, I may never have an opportunity of compleating them.

The occasion of my making these, was afforded me, by my very good friend Dr. Goodall, a Fellow of the Colledg of Physicians, and a great lover of the same, who accidentally meeting with it, when dead; procured it for our private dissection at our Theater; and afterwards more leasurely examining it, at the Repository of the Royal Soci-

B b b ety;

ety; and having the affiftance of my ingenious Friend R. Waller Esq. and Mr. Hunt in making the Figures; I think I may be able to give some better notice of it, than what hitherto we have received.

But it will be convenient first of all, to tell what it is we are going to describe. The Indian names of this Animal are, Quauhtla Coymatl, & Quarizotl; or Coyametl, seu Quauhcoyametl as in the Mexico History. Oviedus saith, the Indians call it Chuchie. In Lerius, Gomara, Margravius, Gul. Piso, &c. it is called Tajacu, Tajacu Caaigoaru. by Josephus à Costa, and others, Zaino, or Sayno; and by Jo. Faber one of the Lyncean Academy, and who hath wrote the largest on this Animal of any I have met with, it is called Aper Mexicanus; and for a reason I shall afterwards give, I have added the Epithet Moschiferus; to distinguish it from any other that may be met with there.

The whole shape of this Animal is such, that we may easily reduce it to the Smine kind; as plainly appears by our Figure, which is much more exact, than either that in Hernandez; where the Snout, and head feems too flender, nor did we observe that white ring about the Neck; which is there conjecturally described. Or that in Piso, Johnston, &c. where it is pictured with large Mustachios, and a Tayle. But it was much leffer then our usual Hoggs, for from the end of the body, where the Table should be, to the top of the head between the ears, was two foot and two inches; from thence, to the end of the nose, XI. Inches. The Girth of the body, two foot. The girth of the neck, 16 Inches; of the head in the largest place 18 Inches; and of the Snout 12 Inches. For the lower Jaw in this Mexico-Hog, was more protuberant, and the head less tapering then in our Smine; and in the Sceleton appears, much like that of the Baby Roussa; only it had not those teeth; and the Neck appeared to very short and thick, not from those large glands, which in some of the Swine kind do so stuffout their necks; but from the short turning upwards of the Vertebræ of the Neck, which were kept

kept so close to the body, by the insertion of that strong ligament into the Pole from the back, which in Animals, that are prono Capite, is of extraordinary use, and much adds to the strength of this Animal.

The Colour of the body was grifly; being befet with briftles, which were thicker then those of a hog, and lesser than those of a hedg-hog, but like those of a Hedg-hog, or the quills of a Porcupine, they were variegated with white and black ringes. Jos. a Costa makes them like these, to be weapons too. Irritati (saith he) Setas, ut novacula, acutas erigunt, quibus insectores suos sauciunt periculosissime; nisi ictus declinent. But I more then suspect the truth of this affertion. The belly was almost bare. The briftles on the fides florter, and gradually encreasing in length, as they approach the ridge of the back. here some were five Inches long. Between the eares on the head was a large tuft of these briftles; which were most part black. Pi/o is out, who makes these Seta on the back, folito breviores, & molliores; and * Fulcoburgius much more in the right; who faith, Setæ longiores, quam pro corporis proportione, nigra, hinc inde maculis candidis distincta.

The Eares were about two inches and ahalf long and pricking up. The Eyes (as they are usually in Piggs) but small; from the lower Canthus to the end of the nose, six inches. The Nose like that of a Hogs. The mouth not large. The side of the lower lip made smooth, as it were by the rubbing of a Tuske in the upper Jaw. The Teeth I will describe with the Sceleton. The Feet and Clawes perfectly as in the common Hoggs, only the upper Claws on the same foot proportionably longer; being one inch quarter and a half long; whereas the true Claws were Scarce one inch and an halfe. Oviedus saith, ungulas non partitas sive bisulcas habent. And Peter Martyr, as he is quoted by Gesner, tells us; they are Cloven

B b b 2

a Apud Tho. Bartholim. Hist. Anat. 26. Cent. 2. b Oviedus in summario Indiæ Occiden al. P. Martyr. Occanæ decad. 1. 2.

footed onely before, & whole behind. but ours was no fuch monster; nor were those observed by F. Gregorius & abundance more. Yet Aristotle, and Pliny too, acknow-

ledge there are Swine, that are Solipedes.

Our Hog had no Tayle. Cauda est nulla, Saith G. Piso, but I wonder why then, he should su er his Picture-Brawer to give him one, as in his sigure. In sonston he wears a Tayle too; who seldome misses the transcribing the Errors of those before him; tho he might have borrowed a far better picture out of Harnandez. P. Martyr mentions, that the Spaniards met with some such Tayl-less Hogs in Urabd. Erat tam exigua ejus modi Apris Cauda, ut prossus abscissa judicaretur. Nor is it any wonder that amongst the Swine kind, some have Tayles, and others none: for we see the same thing in Munkeys too.

But what is most particular in our Hog, and makes the greatest wonder; and differences it, from any other Animal I know of in the World; is the Teat or Navill or Foramen rather on the hinder part of the back. All who mention this Animal; look on this, as a thing so extraordinary, and uncommon; that I know not how their amazement has so far clouded their reason, as to betray them into most extravagant Conjectures, and opinions concerning it. Not any one, as I have met with, affording the least glimmering of a probable truth. But because an account of this part, will be somewhat large; I shall give it the last; and shall now take a survey of its inward organs. Onely shall premise in short what the writers of the Naturall History of the Indies, have given us of the nature of the Tajacu, and the places where tis bred.

Hieron. Benzonus mentions they are in Panama, and new Spaine; Gomara tells us, they are in Nicaragua; Oviedus faith, they are found in Terra firma; and Lerius writes, they are in Brafile too. They are usually met

with

⁶ G. Pifo de James capatique re Nat. & Med. I. 2. p. 93. 6 Hieron. Benzen America p. 5. 6 Comara Har. Gen. Indier. 1. 5. c. 204. 6 Oviedus in James India occidental. 6 Lerius in Navivigat Erafil.

with in the Mountaines, and woods; and go in herds together. They feed on roots, acorns, and fruits; but as the greatest delicacy they hunt for all manner of poysonous Serpents, and Toads; and having caught them, holding them with their fore feet; with a great deal of dexterity, with their teeth they strip of their kin from the head to the Tayle, then greedily devour them. Postea (saith Jo Faber, who had the account from F. Gregorius, who often has seen them, and lived in those parts 24 years) Radicem seu certæ arboris Corticem sibi notum quærit, quem comedit, ne veneno insiciatur; & hac ratione optime nutritur, crescit, & augescit. When they are made tame, they will feed on any thing. But naturally they are very sierce.

Oviedus remarkes that the Smine, the Spaniards left on the Illands of St. Domingo, St. Joannes, and Jamaica, multiplyed, and encreased. But those in Terra Firma durst never go in the woods; but were destroyed by the Lions, Tigers, and Lupi Cervarii. Yet in these woods, there are great herds of these Tajacu's, that can make their party good with the Feircest of them. If any be wounded, presently he gets to his affistance a great number of his kind; and never leaves till he has revenged the injury, They are allwayes at enmity with the Tigers. And there is often found the body of a Tyger, and abundance of these Tajacus slain together. If they spy a man they will fiercely fet on him, and his best escape is to get up a tree, which they will most furiously assault with their teeth, nor will eafily leave him; till forced by hunger, or flain by him, by Clubs, Darts, or a Gun, Josephus á Costa tells us, tis usual this way to take them; by a mansshewing himself to them, whome they know they will present. ly persue. If they hunt them, their dogs are often torne in pieces by them. Their Flesh is effected very good, and much defired by the Inhabitants, G. Pifo faith, it ex-

¹ Histor Animal. &c. Mexican. p. 6,8. * Jos. à Costa lib 4 Hist. Americaells

cells our Hogs; but Hernandez thinks it is durior atque insuavior. They have but a very little fat; our subject had scarce any. But I find it as a special caution given by all, that as foon as they are taken, to cut out the gland on the back, least it taints the flesh. Thus Foseph a Costa, Caro eorum commodissima esu est, priusquam tamen in cibum detur, umbilici tumore in tergo prominente præsecto, abjectoque opus est. Nisi hoc fiat, uno die Caro putrescet, & Corrumpetur. Nay F. Gregorius would have it done immediately, without any delay: " Quare siquod Animal ejusmodi mactatur, necesse est prorsus, ut confestim ipsi umbilicus exscindatur; quod nisi media hora spatio sieret, esui haud amplius aptum animal foret; tam teter enim inde fætor efflatur, qui vix sufferri potest, & reliquam carnis massam omneminficit. I must contess, this gland did not seem to me, to have that offensive smell; or to impress it on the flesh. This I am confident, that in flaying off the Skin, unless they studiously endeavour it; they cannot avoyd taking away the Gland too; it lying so between the skin, and Panniculus mu/culo/us; which is always taken of with the skin, but of this more anon.

We come now to the Anatomy; where our observations shall be chiefly of such parts, as are of a different make from the same in common Hogs; or the most common Animals. Having therefore divided the Muscles of the belly; what first of all we took notice of, was the remarkable structures of the Stomacks, for it had three. Into the middlemost, was inserted the Oesophagus or Gullet; which we therefore shall call the first ventricle or Stomack. From this, on one side was a large passage into the second; which pouching out had its two ends winding like a horn; and on the other side of the first or middle stomack, was a free open passage into the third, which emptyed it self into the duodenum.

For the exacter apprehending the shape. and external

m Vid. Joh. Fabin. Hist. Mex. p. 648.

form of these several Stomacks; I have caused them to be represented in three different postures, in three Schemes which fully demonstrates their outward figure. In Fig. 5. Tab. 1. you more plainly fee the winding extremitys, or horns of the second Stomack. In the 2d. Fig. Tab. 2. the three Stomacks more in their natural scituation; with the infertion of the Oesophagus into the first. In the 1/t, fig. Tab. 2. all three Stomaks opened, wherein is remarkable, that the first Stomack: was lined within, with a white thick hard membrane; almost like the inward pellicle of the Gizard of Fowls; with which none of the other Stomacks were endowed. For the inward furface of the second. was smooth, and foft; its membranes thin, and more inclining to the common make of that of Carnivorous Ani-The third fomewhat like this; but thicker, and rimpled within, with large plica or folds.

Our common Hog seemes to have but one Stomack, and much different from these of our Tajacu. Where nature makes more 'tis no doubt for necessary uses. What here by the white pellicle of the first Stomack, is plainly distinguished into three, is more obscurely so, in our common ⁿ Dr, Grew does give them but two; acknowledging it to be shaped somewhat oddly in a manner with a double Ventricle. "The one, and the principal, may be "called venter magnus, shaped like that of Carnivorous "Quadrupeds, very thick, and Muscular; especially on "the neck, and at the Pylorus. At the left end of this "greater Ventricle, another far lefs, yet a distinct one, is "appendent. Much after the same manner, as the Reti-"culum in a Sheep is to the Paunch, or as the Intestinum "cacum to the other Guts: for which reason it may be "called Cacus Ventriculus, separated from the greater by "a muscular ligament, like a half Valve. where it joyns to "it, an Inch, and half over, and thence is extended two "Inches in length, ending in a twifted or hooked Cone.

n Dr. Grew of the Stomacks and Guts of Quadrupeds cap. 3. p. 14

"Not so muscular as the greater Venter, but thin and "membranous. The inward surface also plain or with-"out tolds. This last described, as it may answer to the second Ventricle in our Tajacu: so his venter magnus, or first, may be distinguished into two; it having about the right end or half of the belly: several f lds as he observed, which answers to our third Stomack, the other end being plain, as was our first.

But what he takes notice of, that in the common Hog against the Pylorus stands a round. Caruncle, as big as a small filberd kernel; like a stople to the Pylorus; a part he thinks peculiar to this Animal. This in our Mexico Hog I did not observe. His o conjecture of the use of it, is likely enough: it being so voracious an Animal; for the preventing a too fudden, and copious irruption of the Aliment, which is sufficiently provided for in our subject, by the great streightning of the Pylorus here; and the great ascent it must make, before it can go out: which may be the reason too, of natures making these several Cells, or partitions; for the better digestion and maceration of the food, for it being frugivorous, graminivorous, and Carnivorous too; the stomacks are so contrived, as that the first here, by its inward pellicle somewhat refembles that of Birds, that are Carpophagous; so the others, those of Quadrupeds.

Why a Hog of any Animal, should be said the most to resemble Man in all its inward parts; without a Metaphor, I cannot understand. It may be a passage in that book, ascribed to Gallen de Anatome parva; may give some occasion to this vulgar Errour None who shall compare them together; but will observe, in several, if not most parts, a vast difference; as appears in what we

have discoursed of allready, the Stomack.

Falcoburgius, who diffected a Tajacu, which was brought from Brafile, takes notice of those Cornua of the

⁹ Dr. Grew ibid cap. 6 p 24.

Stomack. Ventriculus duas habet appendices, velut Cornua; alteram in superiore, alteram in infima ejus parte; which is all he faith of it. But we shall now proceed to the Guts.

And these I find as remarkable as the Stomack; mirum & fingulare (faith P F. Gregorius, who had oft diffected them) est; quod Intestina, & Ventris Viscera contrario prorsus alijs Animalibus situ obtinet, renes versus nimirum revoluta: Ita ut que in ventris parte inferiore, ac prona esse annexa deberent; superiori eadem potius ac supina, ubi spina excurrit, adhæreant, & quæ spinæ dorsi contigua esse nata sunt; hac eadem inferiori in parte ventris situentur. What is meant by all this, is I suppose, that the small guts, which in other Animals, being fastened to a larger Mesentery, usually do hang down lower; here, were closer gathered, by the shortness of this membrane, to the Spine; and the Colon, which in others is more fuspended; here by its peculiar structure, lies loose, and falls down. For the Duodenum arising from the Pylorus with a short turn; that and the other small Intestines made abundance of Convolutions, and windings; and altho' the Mesentery was but very short from the Spine, and it's Circumference seemingly but very little; yet in this compass it conteined 27 foot of these Intestines; for so much they measured from the Pylorus to the Colon. The Colon was not fastened to the Periphery or rim of the Mesentery, as ordinarily; but arising from the Center, or Middle, made a Spiral line, it's end hanging loofe; and it's turnings closely united one to another by membranes. This Colon was very large, in respect of the other Guts; and as I measur'd it, was 9 foot long. It had a short Cacum, but pretty wide, and filled with faces. What Dr. Grew observes, that tis peculiar to the Cacum of a Hog, and that of a Horse; to have the same structure with the Colon; is true here too. And it may be

P Apud Jo. Faber in Hist. Mexican.

reckoned as an appendix of the Colon. In a Hog, Dr. Grew makes seven Intestines. The same differences, it may be, I might have met with here; but I was prevented by the little lealure I had of being so nice in this, as some other parts; and it being kept so long before I had it for dissection; it was rendred less fit for such enquiries. Falcoburgius saith the length of all the guts were 34 geometrical feet, ours measured more. The Structure of the Colon here, I look on as extraordinary. Some fuch gut I find in a Goat, making feveral spiral windings in the middle of the Mesentery; but then taking a compass round, near the verge, to which are fastened the lesser intestines; at last passes into the Restum. So in a Wood-Cock, there is such a Spiral Gut. But in our Tajacu not only the Stomack, Gut, and Messentery were extraordinary; but the Mesaraick, vessels too. For in men, and Dogs, &c. making the fegment of a Circle near the middle, they then fend out several large branches towards the Intestines; which as they approach them, by their mutual inosculation, for in several small Arches from whence iffue numerous lesser branches to the Guts themselves. But here in our Hog, we observed a large Vein, and Artery, running a small and equal distance from the Intestines; and from them, arising an infinite number of lesser, but straight vessels; which going to the Guts fo regularly, and in fo great numbers, afforded a very plefant fight.

The Spleen, was about 10 Inches long; almost of the same breadth throughout; and in the middle, was one Inch, and half broad, it was of a lead colour, a little speckled, or marbled. Lien palmas duas equat transversas, vix digitum minimum crassus, membranæ adiposæ

annexus, faith Falcoburgius.

The Liver confisted of four large lobes; and was of a dark red colour. It appeared plainly glandulous; and had no Vesica fellea, which is the more remarkable; fince our common Swine have a large Cysics fellea. But it had a Ductus bilarius, which went from the Liver to the

Duodenum as usually. Falcoburgius saith, Hepar nullo ligamento suspensorio continetur; per membranam solam vertebris junctum.

The Pancreas was about 5, or 6 Inches long; and made up of feveral glands. But in these parts, there being nothing extraordinary from the common make of the same in other Animals; we shall now pass to the Organs of generation; where we shall meet with something more remarkable.

The Testes were two Inches long; larger at the upper end, then the lower, and in the middle, about an Inch broad, they were placed in the Scrotum. colour white; their structure close; so that the vessels, which composed them; did not so plainly appear as in an ordinary Boar. Notwithstanding which, no doubt their whole compages was vascular; tho here closer wrought together, and united. q Vauclius Dathirius Bonglarus discover'd this vascular structure of the Testis. of a Boar, as also of a Man, about ten years before Reg. de Graef published his book, de organis Virorum Generat. inservientib. and has given good figures of the same. Tho' the latter has given, a much larger, and further account of this subject since. Their use is no doubt to prepare the Semen; which is conveyed thence by the Vasa deferentia to the Vesicula seminales. These deferentia arise near the lower part of the Testes; and are so inferted that they might almost equally empty themselves, either into the Vesica seminales or Vrethra. I do not remember what, or whither there were any Epididymis on the Testes.

The Vesiculæ seminales were 1 2 Inch long; in some places \(\frac{1}{4}\) in others half an Inch broad. Tho' called Vesiculæ; yet here they appeared more glandulous; nor was their cavity any thing considerably large. The common orifices to them, and the Vasa deferentia made a rising in the inside of the Vrethra; which de Graef calls;

Caput Gallinaginis; in men and other Animals, there is a better refemblance, and shew for the name. In those too, at this place, is seated that glandulous body, call'd the Prostatæ. But the Vesiculæ here being so glandulous; possibly they may perform their office. Unless we should ascribe their use, to those two glands; which lay on each side the Vrethra; and emptied themselves with two Orisices, near the root of the Penis. These glands were Cylindrical, of a whitish yellow colour; an Inch, and half long; and so of an Inch in diameter. Their substance close; like that of the Testes; and no perceptible cavity within; and they lay along the outside the Vrethra, reaching from the musculi erestores Penis, to the glandulous Vesiculæ before described.

To Van Horn would have a three-fold matter of the Seed; one from the Testes; the second from the Vesiculæ seminales; and a third from the Prostates. But this de Graaf', strongly apposes; and will admit only that from the Testes; which is transmitted to the Vesicula seminales, and not at all bred there. But in our subject, and so in some others, they being glandulous, they must therefore fecrete some juice; which in all likelyhood is fome ways ferviceable, tho' not principally, in generation. And indeed in the Hog-kind, I find these parts very remarkable. In a Boar there are two forts of Vesicula seminales; one vesiculous, the other glandulous. In a Hedge-hog, there are three pair of Vesicula seminales, two in the cavity of the abdomen; and a third between the Muscles of the Belly, and the Skin. In a female Hedge-hog too, I find in the fide of the Vagina, below the Orifice of the Vrethra, a glandulous body placed; which has a confiderable cavity for it's bigness; and a plain Orifice; by which it empties it self into the Vrethra. But of this more, when I give the Anatomy of that Animal. And at present, shall not further reason

Reg. de Graaf ce Organ, Viror, generat, infervient.

on these parts, but only observe that the Penis in our Tajacu, was a long slender body; made np of several

Muscles whereof two were very long.

The Vesica Vrinaria or bladder of Urine was rounder then in some other Animals; where usually its more oblong. The Vreters were inserted at the neck of the bladder; not sides, as in some. How the kidneys were, I do not now particularly remember; but believe, there was nothing extraordinary; meeting with nothing of them in my notes. I shall therefore hasten to the Thorax; where we did not meet much observable, unless it was the descendent trunck of the Arteria Aorta. Which I shall describe, having first premised, what Falcoburgius writes of the other parts here; which is only this. So. Cor a diaphragmate distat palmam transversam unam. Pulmones in septem lobos distributi, quorum in utroque latere tres siti, septimus vero circa Cordis mucronem positus, tanquam utrique Communis.

But what of all furprifed us most; and made us soon neglect the other parts; which we faw had nothing but what was common; was the strange formation of the Aorta; which as it descended along the spine, in all other Animals, I have observed its trunck almost of an equal bigness; only a little tapering downwards. But here between the heart and its branchings into the Iliac Arteries, we found three large swellings out. largest was that nearest the heart, which after a small straightning again, emptied it self into the second; which the formething less then the first; yet much larger than the third, which was near the division of the Aorta into the Rami Iliaci. Two of these swellings I opened; and found within, several unequal Cells, or hollows; but withal could not perceive but the Membranes here, were altogether as thick as where the Artery was nothing extended.

f Apac Barthol n. loco ante citato.

These extensions of an Artery by Galen, and all others, are called Aneuri/mata; as those of a Vein, Varices; and are reputed to happen, when the inward Coat of the Artery is bursten and so gives way for the extension of the outward; and commonly they have been occasioned by pricking an Artery, when they have defigned a Vein. But what should be the cause of it, in our subject, is most difficult to assigne. For, it being the only one of the kind I have dissected; I know not how far it may be praternatural, or whither in others the same be to be met with again. If præternatural, 'tis the more remarkable it should happenhere; because this is the strongest, and thickest Artery in the whole body. If natural, there is nothing I can at present better paralel it with then those protuberant swellings in the Aorta of Silkwormes, and other such Insects, which Malpighi takes for so many several hearts. Which must be allowed him, unless we will deny them to have any heart at all. Which possibly it may. For in a Leech, there are two large Acteries, without any of these swellings; so we must either confess them, to be two hearts; or not to have any; for there is no part yet I have observed in them, that I can give that name to, befides; nor to these too, without some allowance.

As to the other parts, we have but little to fay; for want of time, we had not leasure to examine the Brain. The Aperture of the Eye was but small, as in the Hog-kind. The membrana nicitians. Plainer, then usually in Quadrupeds; which might be convenient, since wallowing in Mud, they might the better rub off any filth, that might happen there

The Muscles not so distinct, as in some Brutes; and hence the motion of their eyes not so quick nor regular. The Pupil round. The Optick nerve inserted almost in the Axis of the Eye; and on the inside, made a small dint. The Choroides of a pale violet, and brownish colour.

But we shall now come, to what seems most peculiar to this Animal; and as I know of, to be met with, in none besides; and is mentioned by all not without great admiration, who have wrote of this strange Hog; viz. The

Glan .

Glandulous body on the back. Had I not had the first notice of it from them; 'tis a thing so uncommon, that in all likelyhood it had passed inobserved by me, as it might have done too; had only a single Author asserted the Umbilious or Navel to be placed there. But finding so universal a consent, I thought, that tho' they might be mistaken in their conjectures about the uses; yet there must be something that must offer the occasion. Having therefore at last sound it out, and well observed it; I shall here give the description of it, as I viewed it; then deliver the opinions of others, what they conjectured it might be; and lastly offer my own thoughts concerning it Which having done, and taking a short survey of the Sceleton, we shall conclude.

In my description of this part, I shall have frequent recourse to the figures I have caused to be made of it. Which being so accurate, and to the life, will easily discover to the Phantasie what it is; better then it can be drawn or described by words. In figure 1. by the letter (a) you have the place pointed to; where 'twas seated on the back viz. just on the ridge of it, over the hinder legs, but so covered by the long briftles there; that it was not to be observed, but by opening of them, with the hand, and and then you shall find a small space there almost bare; only befet with fewer, florter and finer hairs; and in the middle of it, the protuberant orifice of the gland; by which it discharges it self of the liquor, which is separated by it within. This orifice, or foramen, which is exactly represented in it's natural bigness, and form in Tab. 1. figure 3. had it's lips a little reflected, and protuberant above the furface of the skin. It would eafily admit of a large probe; which I could turn into feveral parts of the Gland. Upon a gentle preffure with my finger, I could observe a small quantity of a white yellowish juice, and some part of it of a little darker Colour; which yeilded a very pleasant, and agreeable feent; and was judged by my felf, and feveral others, who fmelt it; to be much like that of Musk, or Civet. The Glandit felf

felf was feated between the skin and some part of the panniculus Carnosus. For in the middle of that part, or surface, which respected the back, 'twas bare; and not covered with that Muscle; and only the edges of it inclosed within it, so that in taking off the skin, the Gland too, as I have observed, could not easily escape, but go with it; however this Muscle may be affifting to it by its contractions, in prefling out of its liquor: as the Sphincler Muscle is to those Scent Bags, placed at the Extream of the Rectum of other Animals, as I have formerly hinted. The Gland was exactly of the dimensions as represented in Tab. 1. figure 4. 'Twas Conglomerated or made up of several minute, and fmall white glandules. It had no confiderable Cyftis, or Cavity within; but like the Pancreas, or Salivatory glands, it had abundance of fecretory Ductus's; which terminating at last in one, discharged it's separated juice by that common orifice in Figure 3. Tab. 1.

This orifice having something of a resemblance of a Navel, has imposed upon almost all (who have but thus superficially viewed it without examining any thing surther) to believe it, an Umbilious: and those who have deviated from this sentiment; have been as unhappy, in delivering altogether as absurd, and extravagant Conjectures about it. To name them, (which is the fecond particular which I promised) will be a sufficient consutation. Which on this account I do only, to intimate how little we ought to rest satisfied with the Natural History of Animals, at present we have given us. Not but those who have done so much; justly deserve their due commendations. But it would be a great resection, that having their helps, and far greater advantages, should we not improve their observations.

F. Gregorius, (who had so great an opportunity of acquainting himself with the truth of it, being so long in the Country) tells us, Umbilicus exit per spinam circa Clunes. Hieron Benzonus saith, that in a port in Panama, the Spaniards had given them by the Natives, bread, sish,

fruits,

fruits, and swines sies. Apri autem isti Indici, seu agrestes sues; Umbilicum in dorso gerunt. In the notes to this Chapter, the same is consirmed of the nildhogs in New Spain. And Gomara writes the same, of those in Brasile. Oviedus tells us of those in Terra sirma, that Umbilicum in medio dorso gerunt. Fosephus a Costa assirms much the same, Saynos avimalia sunt Aprisormia Umbilicum in dorso gerentes. Fo. Faber concludes from these, and all the accounts he could meet with, in the writers of the Natural History of the West Indies, as a most undoubted truth; Sayno esse Aprum, cui Umbilicus non in ventre sed in dorso prominet. And altho in some other circumstances, their testimonies disagree; yet he saith, in hoc omnia conveniunt, Umbilicum circa dorsi Spinam existere.

Indeed he is very liberal; and gives him, (if I may to call it) a long Navel-string too. It may be, being imposed on, by the picture of Nardus Ant. Recchus; where there is fomething very prominent; and as I believe, was defigned only, to point to the place; where this supposed Navel was seated; rather then to represent any thing na-But in the description, his words are these, tural in it. t sed quod maximopere admireris, ac præter naturæ seriem contigisse dicere queas, nec ullis alijs in bestijs animadvertas, est; quod Animal hoc prominentiam quandam in dorso sortitum fuerit, eminentem apprime & detruncati forma intestini conspicuam: Et hanc in dextra quidem sui parte, prope spinam dorsi sitam, clunes sc. versus, perpendiculariter Genitalis Masculini potius quam umbilici regioni, in ventre adesse porcis soliti, respondentem. In his Scholia on this, he spends some pages in reasoning on this so odd a Phanomenom. But being so much mistaken in the 570 of the question; we shall not trace him farther: but see what others have thought of it.

And our next instance shall be, the opinion of Falco-burgius, a Physitian at Leyden; who diffected one brought

Ddd

vid. Jo. Fabri Exposition, in Animal. Novæ Hisp. p. 637.

from Brafile. And from an Anatomist, we might expect fomething more accurate. Indeed he denyes it to be a Navel; but will have it to be a breaft, or Mamma. I will give his account of it, as I meet with it in v Bartholine; who has taken it out of Margravius (which at prefent I have not by me) in dorsi (fays he) externi medietate, sve super spinam dorsi prope vertebras Lumbares, mamma est, cujus circumferentiam aureus ducatus metiebatur, quam porcellis lactandis destinatam esse, ex glandulis substratis judicabat; in cas enim venæ variæ, eæque satis maynæ inseruntur. Papillarum in sumine nullum usum credebat; nulla enim glandula subjicitur, nec vasa sanguifera comparent pro lacte generando sufficientia. Indeed Fo. de Laet in his annotions on that Chapter in w Margravius, tells us, he was fully informed by those that lived in Brafile; that the young pigs there, did fuck the Teats under the belly; and not that fancyed one on the back; He will rather have it therefore, an Umbilious, as all the Natives take it to

But the third opinion is that of Jo. Lerius, and Thevetus; who make it a Spiraculum, by which it breaths. Habet (faith he) a natura for amen in dorso, quemadmodum in capite suem marinum habere dixi, quo (piritum emittit, admittitque, Gul. Pifo with a short Censure on it, denies that any of these offices ought to be given to this part; and is more inclinable to the opinion of Hernandez; who having disected it, assures us; tis only glandulosa quadam, & mollis pinguedo. The Colour, I beleive, made him call it pinguedo; tho' really it's substance is wholly glandulous.

In it (Hernandez faith) se recipit humor quidam aqueus, qui digitis expressus fluit. But I wonder, that having seen, and dissected them he takes no notice of the scent

it yeilds.

To interpose therefore my own Conjecture concerning

^{*} Tho. Bartholin. cent. 2 Hift. Med. 96. w Margravius. lib. 7. Chap. 7. * Jo. Lerius in Navigar, in Brafil. c. 9. y C. Pilo de India: otriusque re Nat. & Med. I. 3. pag. 99. Franc. Hernandez Hift, Quadruped. Novæ Hifp. Tract. F. c. 2. p. 8.

it; (which is the third thing I promised) there is nothing I can parallel this gland with more, than those feent-bags, or feent-glands, I have formerly mentioned to be in other Animals. For tho' the whole body may be perspirable; and so diffuse a smell; yet that peculiar fator, which is observed in all frong-seented Animals; I have hitherto constantly found, more remarkably collected into one part; the particles, which cause it, being separated from the Mass of blood by peculiar glands; which either quickly discharge it wholly out of the body, as in some; or transmit the separated juice into bags, or bladders, where it remains some longer time, as in many other Animals.

This I first took anotice of, in Polecats; that just at the extream of the Redum, were placed two bags, filled with a craffe, and whitish liquor; whose stink was so very great, that I could not well endure the room, till I had removed them; and then the whole body feemed ve-The fame I have observed in abundance of other Animals; as in all the Polecat-kind, in our common Cats; In a Lyon; in Dogs; In a Fox, &c. bags in the Civet-Cat, or Hyana odorifera are nothing but the same. As are likewise those of a Musk-quash mentioned by Josselin in his history of the Rarities of New-England, For they are not the Testicles of that Animal; as that Letter from Dublin in the Philosophic-Transactions No. 127. pag. 653. does intimate, for having seen the Skins here in Town; and those Musk Cods; I find them to be only the Scent-bags. So the Castoreum we have in our Shops, is not the Stones of a Beaver; as formerly reputed; but of the same nature altogether with our Scentbags.

I should be too prolix, should I inlarge upon this subject here, it shall suffice to say, that in most Species of Animals there may be observed, something the same, or

^{*} Vid. Dr. Plot's Nat. Hiftory of Oxon Shire. Cap. 9. 9. 305.

or analogous to it, which give them, their peculiar fators, or smells. Thus I have observed in Reptiles, as the b Rattle (nake, in Vipers, in our common Snake, &c. two long bags in the Tayle; which empty their fatid liquor, near the verge of the Rectum. But in all Animals, I find not these bags or glands seated here; but in some, in different parts of the body. In Fowl, and Birds in the rumps (as I have formerly mentioned) you will meet with two glands; which have their pipes or secretory ductus arising on the top of it, above the surface of the Skin; which discharges a fætid liquor. I find these Glands the largest in Geele, and the Duck kind, which use the water; and any one at the table, by tasting may perceive in a Duck, how strong scented they be. In Turky's, tis less glandulous; but they have a larger Cystis within. In the Ostridge indeed, I did not observe it on the Rump; but fomething higher on the back; where it made two bunchings out; and under the Skin I found a Cyllis fill'd with a concreted yellowish juice, this something approached near the place, where was seated the Gland in our Mexico Hog, which I call the Scent-gland, and it yielding fo grateful a perfume (for fo it was esteemed by my self, and several others, who smelt it) from it, I have named it, the Mexico Musk Hog.

This difference is remarkable; whereas our Musk Hog has it's Scent Gland seated on the back, and it has been by most hitherto mistaken for a Navel: So the Gazella or Musk Deer has his Musk-bag on the belly near the Umbilicus. This being so largely described by Lucas Schroekius in his Historia Moschi not long since published, I shall re-

ter to him, for a further account of it.

But it may be expected perhaps I should give some farther reasons for the name I have bestowed on our Hog: and the rather too, since no Author has call'd it a perfume, but branded it as the greatest Stink; As is already ob-

b Vid. Philosoph. Transact. No. 144 p. 38.

ferved by that great Caution they give, of cutting it out, least it spoils all the other flesh, Jo. Faber labours much to give an account, how this horrid fator should happen. And having fallen into one errour, in supposing it a Navel; that leads, and præcipitates him into others. And makes him fancy sometimes it may be from the Urine; whose Virulent Steams may come here, by the Vrachus. Other times he knows not, but that an Intestine likewise may be fastened there: but is most of all inclinable to think, 'tis from the Vrinaculum as he calls it. observes what an horrid Stink the Vrine of Cats will make, where it lights. But here I must remark that in rendring their Trine, at the same time, they may empty their Scentbags seated at the Rectum, which mixing with it, in a great measure, may give it it's strong fator. So the same of Rats, and Mice, of a Fox when hunted, &c. And I am apt to think twas by removing these Scent-bags rather, then taking out the Kidneys; that they made the Sarigov edible, which otherwise stank so much, that the Barbarous Natives refused them, as out of Lerius, 70. Faber takes notice. This Stink therefore or Smell in our Tajacu, come not from any other parts; but is naturally feparated here. As is the Musk, the Civet, the Caltor, the fmell of a Fox, of the Pole-Cat, &c. in their proper Scent-Glands, and Scent-bags. Nor am I any thing concerned, that others fay it Stinks, when I would make it a perfume; Or do I, question, but that their Sense, and Noses were as good as mine: Since I know, that the best perfumes sometimes make the greatest Stinks. Civet, nay Musk it felf when fresh, and green, and in large quantities, are no ways agreeable, but very offensive to the smell; as many have observed, And what is more too, such is Ambergreafe at the first, as "Gul. Pifo does assure us. Quod equidem mirum (saith he) cum omnis, ante insolationem, molle tantum gluten sit Ambra; ingratoque adeo odore nares se-

[•] G. Pisode sndiæ utriusque re Nat. & Med. li. 1, p. 17.

riens, nt ab inexpertis plane resputatur. Our Tajaen, therefore when young, and when but a small quantity of this liquor is separated by this Gland; may afford but little, or no Scent. So Foxes till they are well grown, do not much Stink; but afterwards, when in great plenty this juice is voyded; by it's copiosness, and being thin, and sluid, and so more vapourable; it might strike our Organs with such brisk, and nimble strokes; as to create a pain; whereas a more leasurely appulse of it's particles from a lesser; and concreted body, may give a pleasure. As the seirce rayes of a scorching sire, does excite a dolorous sense; whenas it is delighted, and refreshed by the gentler beams of a moderate Sun.

Our Tajacu, therefore no doubt, when this gland does very liberally discharge it's liquor, may be thought to (tink; and yet this (tink in time, may become a perfume. Thus that fætid liquor in the Scent-bags of a Weafel; having formerly put it on a paper, and kept it a little while; afforded me a pleasant smell. Why therefore we perceived no stink at first, upon the diffection of this Gland; but rather a sweet, and pleasant smell, (if it is otherwise in the Countries where they breed) this may be the reason; be cause it had been dead some days, before I examined this part. And then I found but a small quantity of an incrassated liquor there. Tho' I must acknowledge that I was informed that when it was alive; it was observed by the family, where 'twaskept; that whereever it went, it left a good perfume behind it. am fure of, that when twas dead, and observed by me, and several others; it yielded a fragrant one, which I think is sufficient to justifie, or at least to excuse the Name I have given it.

And now to give a short account of the Sceleton and so to end; we observed that the Cranium, seemed entire, without sutures. From the Nose, to the end of the Pole 8½ Inches. Here the Cranium grew very narrow; and then did spread it self again triangularwise, and behind made a large hollow where it respected the back; and

where were inserted strong Muscles, and the ligament from the back, I formerly mentioned; by which means the head is kept so straight up; that when alive, he seemed to have but a very short if any Neck at all. The Porus auditorius or passage to the Eare was something remarkable; being placed near the Pole, and is represented by letter (h) in the Sceleton.

In the upper faw before were four Teeth or Incifores. A little farther was placed a large flat Tusk, sharpedged; and standing outwards; and beyond that, of each side, six double Teeth or Molares. In the Baby Roussa there are but sive; and abating the largeness of the Tusk, in the lower faw; and those Horns (as Dr. Grem asserts them to be; who calls this Animal a Horned Hog) in the upper; in almost all other respects, the bones of the head here, were like those of that Animal.

The lower Jam was 6 2 Inches long; 12 broad at the first double Tooth, of which there were six of each side. The bone of the lower Jaw here, from the Dentes Molares, to the Incisores; seemed spongy and carious; and the Tusks in this Jam, were rotted out; as were one, or two of the Incisores; which in all were about four.

There were seven Vertebræ of the Neck; which meafured in length 4½ Inches. The first or Atlas, had two broad transverse processes, but no spine. The second had a broad large spine. The third, fourth, fifth, had no spines; the fixth, and seventh, had large acute ones. There were nineteen Vertebræ of the back; the spines of the first, second, and third, were about three Inches long; but they gradually decreased, as they approached the Tayle. The first Vertebræ of the Os Coccygis, was two Inches long. but I thought, that first it might have been several; the now twas but one bone. There were about six Vertebræmore; which ran no farther then the extent of the Os Ischip.

d Musæum Regal. Societat. p. 27.

There were fourteen Ribs of each side, The Os Sterni jutted out about an Inch, beyond the setting on of the

first Ribs,

The Scapula was five Inches long. The Os femoris of the fore foot, significant length in the Whole: but from the juncture with the Os femoris, to the Os Metatarsi twas but four Inches. For from the juncture with the Thigh-bone, it jutted out further as in the Fig. The bones of the Tar-sus were five: of the Metatarsus three, about two Inches long. The bones of the Digiti nine; there being three, to each Claw; and three Claws on each fore foot.

The Os femoris of the hinder toot, was almost six Inches long; and near it's juncture with the Os Tibia it had a small bone, like the Patella in the knee of a Man. In the leg here were two bones: the Focile majus, and minus sive Inches, and half long. But this part in the fore leg was only a single bone; tho' in a Dog, a Munky and some other Animals there are two bones in the fore-leg likewise. The Os Calcis was almost two Inches long; and there

were four other bones of the Tar (us or instep.

The Metatarsus or foot was composed of four bones; but the two inwardmost much the largest; being 2 \pm long, there were four digiti; in each three bones; whereof the

last was covered with a Nail.

[383]

The Explanation of the Figures.

Tab. I.

Fig. 1. Represents the natural shape of this Mexico Hog: and the line marked (a) points to the Scent Gland, on the hinder part of the back.

Fig. 2. Gives a view of the Sceleton. a The fore Teeth or Incifores. b The Tusk. c c The Grinders, or Molares. d The Lower Jaw. e That part of the Lower Jaw, which was carious. f The Cranium. g The Orbit of the Eye. b The Porus Anditorius, or passage to the Earc. i The traingular Expansion of the Craniam backbards. k The Vertebræ of the Neck. 11 The Vertebra of the Back and Loyns. m The Vertebra of the Os Coccygis. nn The Ribs. o The protuberant bone of the Sternum. p The Scapula or shoulder blade. 9 The Os Ischij. rr The Os Femeris or Thigh bones. The Patella of the hinder legs. t The Tibia of the fore leg. v A large protuberancy of the Tibia. w The Tibia or Fossile majus of the hinder leg. x The Fibula or Fossile minus of the hinder leg. yy The Tarfus or Instep on both legs. z The Calx or heel in the hinder leg. aaa The bones of the Metatar us or Foot.

666 The Digiti or Toes.

y y y The Nails.

Fig. 3. Shows the Orifice of the Scent Gland, as it naturally appeared on the outfide of the Skin of the back; which from fome small resemblance it had, imposed on all almost hitherto, to believe it an Umbilicus, or Navel a little space round this Orifice was almost bare of Bristles.

Fig. 4. Exactly represents, in it's natural dimensions, the Scent Gland E e e

[3847

it self; which was Conglomerated, or made up of abundance of leffer glandules.

Fig. 5. In this Scheme are delicneated most of the Viscera in the belly; being taken out of the body. Where

A The Oesophagus or Gullet.

B The first Ventricle or Stomack.

C The second Ventricle or Stomack.

d d The Cornua or horns of the second Stomack.

E The third Stomack.

f The Pylorus.

g g g. The Intestina tennia, or small guts.

HHH. The Colon.

i The Cacum.

k The Rectum.

1 The Mensentery.

mm The Meseraick Vessels.

n The Pancreas.

. The Spicen.

P Tho Liver.

9 The Ductus of the Gall from the Liver to the Duodenum.

Tab. 2.

Fig. 1. Represents the Stomack opened.

A The Oesophagus or gula.

b The entrance of the Gula, or gullet into the first Stomack.

CC The infide of the first Stomack, which was invested with a strong thick white pellicle or membrance.

D D The second Stomack,

E E The third Stomack in which were remarkale several Plica or folds.

f The Pylorus.

Fig. 2, Represents the outside of the three Stomacks more in their natural Situation.

A The Gula.

B The first Stomack.

C The fecond Stomack.

D The third Stomack.

E The Pylorus.

fff The blood Vessels,

[385]

Fig. 3 Represents the Genital parts, and the bladder.

A The bladder of Urine.

B The neck of the Bladder.

CC The Ureters.

D D The Testes, or Stones.

e e The Vaja deferentia.

ff The Vesicule seminales, which here were glandulous.

g The Caput Gallinaginis, where the Vesicula seminales, and Vasa deferinting empty themselves into the Vrethra.

b h Two glandulous bodies, which possibly may be reckoned the

Prostata.

i The orifices by which these glandulous bodies empty themselve into the Urethra.

K The Urcthra opened.

L The Penis.

M M Two Muscles belonging to the Penis.

N N Other Muscles assisting to the same.

Fig. 4. Shews the heart, and the Aneurismana of the Arteria Aorta, or great Artery.

A The heart.

bb The ascending branches of the great Artery.

c The descending Trunk of the great Artery.

D'The first Aneurisma, or distinction of the great Artery opened to shew its several cells within.

e Astraightning of the Artery again.

f The second Aneurisma opened likewise.

g The third or smallest Aneurisma.

b h The Iliac branches of the great Artery.