

II. *A Discourse concerning the Large Horns frequently found under Ground in Ireland, Concluding from them that the great American Deer, call'd a Moose, was formerly common in that Island: With Remarks on some other things Natural to that Country.* By Thomas Molyneux, M. D. Fellow of the King and Queens Colledge of Physicians in Ireland, and of the Royal Society in England.

THAT no real Species of Living Creatures is so utterly extinct, as to be lost entirely out of the World, since it was first Created, is the Opinion of many Naturalists; and 'tis grounded on so good a principle of Providence taking Care in general of all its Animal Productions, that it deserves our Assent. However great Vicissitudes may be observed to attend the Works of Nature, as well as *Humane Affairs*; so that some entire Species of Animals, which have been formerly Common, nay even numerons in certain Countries; have, in Process of time, been so perfectly lost, as to become there utterly *unknown*; tho' at the same time it cannot be denyed, but the *Kind* has been carefully preserved in some other part of the World.

Of this we have a remarkable Example in *Ireland*, in a most large and stately Beast, that undoubtedly has been frequent in this Kingdom, tho' now clear-

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ly extinct ; and that so many Ages past, as there remains among us not the least *Record* in Writing, or any manner of *Tradition*, that makes so much as mention of its Name ; as that most Laborious Inquirer into the pretended *Ancient*, but certainly *Fabulous History* of this Country, Mr. *Roger O Flaherty*, the Author of *Ogygia*, has lately informed me.

What Discoveries therefore we make of this Creature, we can only have from those *loose parts* of it we find dug out of the Earth by Accident, preserved there so many Ages from Corruption, by lying deep and close under Ground, whilst harder and of themselves more durable Bodies, moulder away and perish, by being exposed to the various Changes of the Air, and repeated Injuries of the Weather.

By the *Remains* we have of this *Animal*, it appears to have been of the *Genus Cervinum* or *Deer Kind*, and of that sort that carries *Broad* or *Palmed Hornes*, bearing a greater affinity with the *Buck* or *Fallow Deer*, than with the *Stag* or *Red Deer*, that has Hornes round and branched, without a *Palme*: This I lately observed, having an opportunity of particularly Examining a compleat Head, with both its Horns entirely perfect, not long since dug up, given to my Brother *William Molyneux*, as a Natural Curiosity, by Mr. *Henry Osborn*, that lives at a place call'd *Dardistown*, in the County of *Meath*, about Two Miles from *Drogheda*, who writ him the following Account of the manner and place they were found in.

*I have by the Bearer sent the Head and Horns I promised you ; this is the third Head I have found by casual trenching in my Orchard ; they were all dug up within*



within the Compass of an Acre of Land, and lay about four or five Foot under Ground, in a sort of Boggy Soil. The first Pitch was of Earth, the next two or three of Turff, and then followed a sort of white Marle, where they were found: They must have lain there several Ages, to be so deep enterred. (Thus far Mr. Osborn.)

I took their *Dimensions* carefully as follows; from the extreme tip of the right Horn, to the extreme tip of the left, as exprest in the annexed Table, Figure the 1<sup>st</sup>. by the prick't Line *A. B.* was ten Foot ten Inches, from the tip of the right Horn, to the Root where it was fastned to the Head, Exprest by the Line *C. D.* five Foot two Inches from the Tip of the highest Branch (measuring one of the Horns transverse, or directly across the Palme) to the tip of the lowest Branch, exprest by the Line *G. F.* Three Foot Seven Inches and a Half. The length of one of the Palms within the Branches, exprest by the Line *G. H.* Two Foot Six Inches: The breadth of the same Palm, still within the Branches, exprest by the Line *I. K.* One Foot Ten Inches and a half: The Branches that shot forth round the edge of each Palm, were Nine in Number, besides the *Brow-Antlers*, of which the right Antler, exprest by the Line *D. L.* was a Foot and Two Inches in length, the other was much shorter: The Beam of each Horn at some distance from the Head, where 'tis mark'd *M.* was about Two Inches and Six tenths of an Inch in Diameter, or about Eight Inches in Circumference; at the Root where it was fastned to the Head, about Eleven Inches in Circumference. The length of the Head, from the back of the Skull to the tip of the Nose, or rather the extremity of the upper Jaw-bone, exprest in the Figure by the Line *N. O.* Two Foot,

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the breadth of the Skull where largest, mark'd by the Line *P. Q.* was a Foot.

The Two Holes near the Roots of the Horns, that look like Eyes were not so, (for these were placed on each side the Head in Two ample Cavities, that could not be well exprest in the Figure) but were large open Passages, near an Inch in Diameter in the *Forehead Bone*, to give way to great Blood-vessels, that here issue forth from the Head, and pass between the Surface of the Horn, and the smooth Hairy Skin that Covers them whilst they are growing, (which is commonly call'd the *Velvet*) to supply the Horns with sufficient Nourishment, while they are soft, and till they arrive at their full Magnitude, so as to become perfectly hard and solid. *These* Vessels, by reason of their largeness and great turgency of the Humor in them; whilst the Horn is sprouting and pliant, make deep and conspicuous furrows all along the outside of it where they pass; which may plainly be seen after the Horn is bare and come to its full growth; at which time all these Veins and Arteries, with the outward Velvet Skin, drying by the Course of Nature, shrivel up and separate from the Horn, and the Beast affects tearing them off in great stripes against the Bows of Trees, exposing his Horns naked, when they are thoroughly hardned, without any Covering at all. This I gather, by what Remarks I have made on the Skulls of other Deer, and what I have observed concerning the growth of these sort of Horns in Animals of the like kind, tho' not in this particular sort of Creature.

The Figure I had exactly taken by a skilful Hand, to shew truly the right shape and size of these kind of Horns



Horns we so commonly find here under Ground in Ireland; and have likewise added a Draught of a pair of common Stags Horns, exprest Figure the 2d. and another of a pair of common Bucks Horns, exprest Figure the 3d. all done according to the same *Scale*; that by this means, at one and the same time, may appear the grand disproportion between these sorts of Heads, and also the difference and agreement in their Shape. (See the Table.)

Such then were the vast Dimensions, according to which the lofty Fabrick of the Head and Horns of this stately Creature was Built; and doubtless all the rest of the parts of its Body answered these in a due proportion. So that should we compare the fairest Buck with the Symetry of this mighty Beast, it must certainly fall as much short of its Proportions as the smallest young *Fawn*, compared to the largest over-grown Buck.

And yet 'tis not to be question'd, but these spacious Horns, as large as they were, like others of the *Deer Kind*, were naturally cast every Year, and grew again to their full Size in about the Space of Four Months: For all Species of Deer, yet known, certainly drop their Horns yearly, and with us 'tis about *March*, and about *July* following they are full *summ'd* again. Of which strange Appearance in Nature, the learned *Gerrardus Johannes Vossius* making mention in his excellent Book *De Idololatriâ, Lib. 3. Cap. 57.* has these Words: *Ponam inter Naturæ maximè admiranda breviculo adeo Tempore tam solida duraq; tantæ Molis Cornua enasci (a).*

(a) That is, I shall reckon it among the most wonderful Works of Nature, that Horns so hard and solid, and of so great a Bulk, should grow up in so short a time.

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And the inquisitive Italian Philosopher, *Francisco Redi*, in his *Experimenta circa res Naturales*, &c. on the same Occasion expresses himself thus: *Maximâ profecto admiratione dignum est tantam Molem Cornuum & Ramorum tam brevi tempore quotannis renasci & crescere (b)*. And if these judicious Persons were moved thus with Admiration by considering only the yearly Falling and sudden Growth of these smaller Horns of *Bucks* and *Stags*, with which alone they were acquainted, what would they have thought, had they known of these vast and stupendious Productions of Nature in the same Kind.

As there seems to me no small Affinity or Agreement in the *Sprouting* forth, and *Branching* of Deers Horns, with the way of *Growth* in Vegetables; so I conceive likewise the constant yearly dropping of them, to proceed much from the same Cause, that Trees annually cast their ripe Fruit, or let fall their withering Leaves in *Autumn*: that is, because the nourishing Juice, say it is Sap or Blood, is stopt and flows no longer; either on the account 'tis now deficient, being all spent, or that the cavous Passages which convey it, dry up and cools; so as the *Part* having no longer any Communication with, must of necessity by degrees sever from the *Whole*; but with this Difference, that Horns by reason of their hard Material and strong Composition, stick fast to the Head by their Root, Seven or Eight Months after all their Nourishment perfectly retires; whereas Leaves and Fruit, consisting of a much more tender Substance and a finer Texture of Parts, drop sooner from their native

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(b) That is, Truly it deserves our greatest Wonder that so large a Body of Horns and Branches should sprout up in so short a time, and be renewed every Year.



Beds where they grew, when once the Supply of usual Nourishment is stopt; this Analogy that Nature observes in casting the Horns of Beasts and dropping the Fruit of Trees, will appear much more evident to any one that will observe the end of a Stalk, from which a ripe Orange or any such large Fruit has been lately sever'd, and the Butt end of a cast Horn where it fasten'd to the *Os Frontis*: for by comparing them together, he shall find so great a Congruity in the shape of both, that 'twill be apparent Nature works according to the same Mechanism in one as in t'other.

Discoursing one Day with his *Excellency* the Lord Capell, then one of the *Lord Justices* of Ireland, an experienc'd and accurate Observer of the Works of Nature, I chanced to mention these *Large Horns*: He was very earnest to see them, and so mightily surpris'd at the sight of their extraordinary Bulk, that my Brother thought fit to make a Present of them to his Lordship, which he obligingly accepted; resolving to send them over, as he said, to his Majesty King *William*.

Such another Head, with both the Horns intire was found some Years since by one Mr. *Van Delure* in the County of *Clare*, buried Ten Foot under Ground in a sort of *Marle*, and were presented by him to the late Duke of *Ormond*, then Lord Lieutenant of *Ireland*, who valued them so highly for their prodigious largeness, that he thought them not an unfit Present for the King, and sent them for *England* to King *Charles* the Second, who ordered them to be set up in the *Horn-Gallery* at *Hampton-Court*; where they may still be seen among the rest of the large Heads both of Stags and Bucks that adorn that Place, but this so vastly exceeds the largest of them, that the rest appear to lose much of their

Curiosity



Curiosity by being viewed in Company with this. I am lately informed, these with the other Heads are since removed to the *Guard-Room* out of the *Horn-Gallery*.

In the Year 1691. Major *Folliot* told me, that digging for *Marle* near the Town *Ballymackward*, where he lives, not far from *Ballyshannon* in the County of *Fermanagh*, he found buried Ten Foot under plain solid Ground, a Pair of these sort of Horns, which he keeps still in his Possession.

In the Year 1684. there were Two of these Heads dug up near *Turvy*, the Mansion Seat of the Lord *Barnvall*, within Eight Miles of *Dublin*; that which was most compleat of the Two was fixt over the Chimney in the Publick Hall; and there still remains as an ancient and lasting Curiosity to future Ages.

Not long since, a Head of this Kind with its Horns was found near *Portumny*, the House of the Earls of *Clanricard*, seated on the River *Shannon*, in the County of *Gallway*, where it is carefully preserved, and still admired by all that view it.

Such a Forehead with Two extraordinary *Beams* of these Kind of *Horns*, may be now seen fastened against one side of the Common Hall of his Grace *Michael* Lord Archbishop of *Ardmagh*'s House here in *Dublin*; they are both imperfect and want their *Palms*, yet by the vast thickness and length of the *Beams*, I judge when entire they much exceeded the Size of those I have given the Dimensions of above. The *Primate* told me, they were found somewhere in the Province of *Ulster*,  
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and presented to the Earl of *Essex*, then Governor of *Ireland*, who gave them his *Grace*.

To these I should add many more Instances of the like, as those found by the late Lord *Mountjoy*, near his House at *Newtown-Stewart*; and those kept at *Stockallen* in the County of *Meath*, for to my Knowledge within less than Twenty Years, above Twenty, might safely say, Thirty Pair of these sort of Horns have been dug up in several places of this Country, all found by Accident; and we may well suppose vast Numbers still remain undiscovered, but to mention any more of them particularly would be tedious, and to little purpose, since these may suffice plainly to shew, this Creature was formerly *Common* with us in *Ireland*; and an *Indigenous Animal*, not peculiar to any Territory or Province, but universally met with in all parts of the Kingdom.

For if we draw a Line through the several Places of this Island where these Heads have been found, *viz.* the County of *Clare*, the County of *Dublin*, and the County of *Farmanagh*, omitting those other parts I have mentioned; we shall make a Triangle whose shortest Side will be in length above an Hundred English Miles, which is near as large a Figure of this Sort, as we can well describe in the Map of *Ireland*.

And besides, we may reasonably, I think, gather; That they were not only common in this Country, but by what Mr. *Osborn* mentions in his Letter to my Brother, That they were a *Gregarious Animal*, as the Naturalists call them, or such a sort of Creature as affect naturally keeping together in *Herd*s; as we see the *Fallow Deer* with us, and as 'tis reported of the *Elches* in



*Sweden*, and the *Rain Deer* in the Northern Countries of *Europe* ; for otherwise we cannot easily fancy it should happen, that *Three* of their *Heads* should be all found within the narrow Compass of one *Acre* of *Ground*.

That these and several others, and indeed I think I may say, all that I have been particularly informed of, though dug up in far distant Places of *Ireland*, should be constantly found buried in a *Sort* of *Marle*, seems to me to intimate, as if *Marle* was only a Soil that had been formerly the *Outward Surface* of the *Earth*, but in process of Time, being covered by degrees with many Layers of Adventitious Earth, has by lying under Ground a certain Number of Ages, acquired a peculiar *Texture*, *Consistence*, *Richness*, or *Maturity* that gives it the Name of *Marle*. For of necessity we must allow the Place where these Heads are now found, was certainly once the external Superfice of the *Ground*; otherwise 'tis hardly possible to suppose how they should come there.

And that they should be so deep buried as we at present find them, appears to have happen'd, by their accidentally falling where it was soft low Ground ; so that the Horns by their own considerable *Gravity* might easily make a Bed where they settled in the yielding Earth ; and in a very long Course of Time, the higher Lands being by degrees dissolved by repeated Rains, and waht and brought down by Floods, covered those Places that were scituated lower with many Layers of Earth : For all high Grounds and Hills, unless they consist of Rock, by this means naturally lose a little every Year of their Height ; and sometimes sensibly become lower even in one Age ; of which we may see several satisfactory Instances related by Dr. *Plott* in his

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*Natural History of Staffordshire*, Chap. 3. Page 113.  
as for all such Heads that might chance to fall on high  
or hard Grounds, where they could not possibly be co-  
vered or defended, these must of necessity rot, perish,  
and be destroyed by the Weather : And for this Reason  
it is, that never any of these Horns are discovered in  
such sort of Ground, but always in a light Soil, and  
in some low Part of the Country.

By what means this Kind of Animal, formerly so  
common and numerous in this Country, should now  
become utterly lost and extinct, deserves our Consid-  
eration : and seeing it is so many Ages past, that we  
have no manner of Account left to help us in our En-  
quiry, the most we can do in this Matter is to make  
some probable Conjectures about it ; I know some  
have been apt to imagine this like all other Animals  
might have been destroyed from off the Face of this  
Country by that Flood recorded in the Holy Scripture  
to have happened in the the time of *Noah* ; which I  
confess is a ready and short way to solve this Difficul-  
ty, but does not at all satisfy me : For (besides that  
that there want not Arguments, and some of them not  
easily answer'd, against the Deluge being Universal)  
if we consider what a fragil, slight and porous Sub-  
stance these and the Horns of all Deer are, we can't  
well suppose they could by any means be preserv'd en-  
tire and uncorrupt from the Flood, now above Four  
Thousand Years since ; and I have by me some of the  
Teeth, and one of the lower Jaw-bones of this Crea-  
ture so perfect, solid, ponderous and fresh, that no one  
that sees them can possibly suspect they could have been  
in nature so many Ages past : And therefore it seems  
more likely to me, this kind of Animal might become  
extinct here from a certain ill Constitution of Air in



Some of the past Seasons long since the Flood, which might occasion an *Epidemick Distemper*, if we may so call it, or *Pestilential Murren*, peculiarly to affect this sort of Creature, so as to destroy at once great Numbers of 'em, if not quite ruine the Species.

And this is not so groundless an Assertion as at first it may appear, if we consider this Island may very well be thought neither a Country nor Climate so truly proper and natural to this Animal, as to be perfectly agreeable to its temper; since for ought I can yet learn it neither is, nor ever has been an Inhabitant of any of the adjacent Kingdoms round about us. And besides, the *Three Heads* above mentioned, found so close to one another in the County of *Meath*, and the Two near *Turvy*, seems not a little to countenance this Opinion; as if these Animals dyed together in *Numbers*, as they had lived together in *Herds*.

To this purpose I have met with a remarkable Passage in *Scheffer's Description of Lapland*, Chap. 28. speaking of the *Cervus Rangifer*, an Animal that agrees in Kind with ours, though it be a quite different Sort of *Deer*, he says that whole *Herds* of them are often destroy'd by a *Raging Distemper* common among them; these are his Words: *Est & Morbis suis genus hoc Obnoxium qui si ingruant Gregem totum solent pervagare & ad necem dare; qua de re Johannes Bureus ita habet in Schedis suis, solet interdum Rangiferos morbus quidam velut Pestis invadere sic ut moriantur omnes Lappoq. compellatur novos sibi comparare Rangiferos (c).* By

(c) That is, this Kind of Creature is likewise subject to its Diseases which if they seize a Flock, goes through them all; concerning which *Johannes Bureus* has it thus in his Papers; sometimes a sort of Disease after the manner of a *Plague*, affects the *Rain Deer*, so as they all dye, and the *Laplander* is forced to supply himself with new *Rain Deer*.

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which we may see what we conjecture in our Case, is not meer Supposition, but certainly happens elsewhere to Animals of the like Kind.

But since we have an Instance of so destructive a Mortality among Beasts as quite to extinguish a whole *Species* at once, we may think some might have escaped the *Common Calamity*; but these being so few in Number, I imagine as the Country became peopled, and thickly inhabited; they were soon destroy'd, and kill'd like other Venison as well for the sake of Food as Mastery and Diversion. And indeed none of these Animals by reason of their *Stupendious Bulk* and *Wide Spreading Horns* could possibly lye sheltered long in any Place, but must be soon discovered, and being so conspicuous and heavy were the more easily pursued and taken by their numerous Hunters, in a Country all environed by the Sea: For had they been on the wide Continent they might have fared better, and secured themselves and their *Race* till this time, as well as others of the same Kind have done elsewhere. Of which more hereafter.

Or had those Barbarous Times been capable of taking Care for the Preservation of this stately Creature, our Country would not have entirely lost so singular and beautiful an Ornament: But this could not be expected from those savage Ages of the World, which certainly would not have spared the rest of the *Deer Kind*, Stags and Hinds, Bucks and Does, which we still have; but that these being of much smaller Size, could shelter and conceal themselves easier under the Covert of Woods and Mountains, so as to escape utter Destruction.

And



And here I cannot but observe, that the *Red Deer* in these our Days, is much more rare with us in *Ireland*, than it has been formerly, even in the Memory of Man : And tho' I take it to be a Creature, naturally more peculiar to this Country than to *England*, yet unless there be some care taken to preserve it, I believe in process of time this Kind may be lost also, like the other sort we were now speaking of.

It remains we should say something concerning the *Proper Name* of this *Animal*, and what *Species* of Creature it was to which these stately Horns formerly belonged. And I must here needs own, that I have not met to this Day with any Person, that has spent the least serious thought concerning this matter. So destitute have we been in this Place of that inquisitive Genius, that in these later Ages has so much everywhere prevailed, in setting the Minds of Men upon a diligent search after, and making curious and useful Remarks, on all things that are truly the admirable Workmanship of Nature.

I know they are vulgarly call'd by ignorant People, nay, and some of the learned *Vulgus* in this Country, *Elches Hornes* ; and that they are so, is an Opinion generally received, and satisfies such as talk of them Superficially, without further Enquiry ; and because this is an Error that has so Universally prevailed, I shall take the more pains particularly to Confute it, and I hope clear this point so from all manner of doubt, that for the future there shall be no further questions made of it again ; the mistake, I am satisfied, has only proceeded from hence, that we are in these parts as great Strangers to that sort of Animal call'd the *Alche Elche*, or *Elende*, as we are to this of our own Country,



Country, knowing by hear-say only, that 'tis a large Beast with big Horns; but unless we shall give the same Name to Two Animals vastly different, which is Preposterous and breeds Confusion, we must not allow these Horns should any longer pass under the Name of *Elches Horns*.

I have seen a Pair of genuine *Elches Horns* brought out of *Swedeland*, and they differed extremely, both in *Figure* and *Size*, from these we have now described: they were abundantly smaller, quite of another shape and make, not *Palmed* or broad at the end farthest from the Head as *Ours*; but on the contrary, broader towards the Head, and growing still narrower towards the Tips end, the smaller Branches not issuing forth from both Edges of the Horns as in *Ours*, but growing along the upper Edge only, whilst the other Verge of the Horn was wholly plain without any Branches at all.

And accordingly the faithful *Gesner*, in the first Chapter of his Book *De Quadrupedibus*, has given us the right Description of them, where he expresses the Figure of the *Elche* and its *Horns* apart; and speaking of the Size of them, he says, *Cornua singula Libras circiter Duodecem appendunt, longitudine fere duorum pedum (d)*. Whereas the Horns we find here in *Ireland* are near thrice that *Length*, and above double that *Weight*; though dry'd and much lighter from their being so long kept: But I confess, I say, this only by estimate, not having an opportunity to weigh exactly a single Horn by it self, though I'm sure I can't be much out.

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(d) That is, each Horn weighs about Twelve Pounds, and was in length almost Two Foot.



Moreover the *Elche*, as described by *Apollonius Menabenus*, who had seen many of them, is no larger than a midling Horse: these are his own Words, as quoted by *Aldrovandus*: *Habet hoc Animal crassitiem & proceritatem mediocris & pinguis Equi* (e). And agreeable to this is the Relation given in the *Memoirs* of the Parisian Anatomists, who dissected one of them: And I remember Mr. *Duncombe*, then one of the Lords Justices of *Ireland*, told me, when he was Envoy in *Sweden*, he had seen there above a Hundred *Elches* together in a *Herd*, and none of them above Five Foot high; and if so, we cannot imagine a Creature of that small Size, could possibly support so large and heavy a Head, with so wide and spreading a Pair of Horns as these we are speaking of; considering that exact Symetry, and due Proportion of Parts, Nature observes in the Formation of all the larger and perfecter sort of Animals.

We must then look out, and try if we can discover among the various Species of *Quadrupeds*, some other, whose Size and Description will better agree with this *our Irish Animal* than that of the *Elche* does: And after all our Inquiry, we certainly shan't discover any one that in all respects exactly answers it, save only that *Lofty Horned Beast* in the *West-Indies*, call'd, a *Moose*.

This Animal I find described by Mr. *John Josselyn*, among his *New England Rarities* in these Words: *The Moose Deer, common in these Parts, is a very goodly Creature, some of them Twelve Foot high*, (in height, says another Author more particularly, *From the Toe of the Fore-foot to the Pitch of the Shoulder, Twelve Foot; in*

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(e) That is, this Animal is about the Height and Thickness of a midling Horse.



its full growth much bigger than an Ox) with exceeding fair Horns with broad Palms, some of them Two Fathom or Twelve foot from the Tip of one Horn to the other. That is, Fourteen Inches wider than Ours was.

Another thus describes the Manner of the Indians Hunting this Creature : They commonly hunt the Moose, which is a kind of Deer, in the Winter, and run him down sometimes in half, otherwhile a whole Day, when the Ground is cover'd with Snow, which usually lyes here Four Foot deep; the Beast, very heavy, sinks every Step as he runs, breaking down Trees as big as a Man's Thigh with his Horns, at length they get up with't, and darting their Lances, wound it so, that the Creature walks heavily on, till tired and spent with loss of Blood, it sinks and falls like a ruin'd Building, making the Earth shake under it. Thus far what these Authors say of the Moose.

I do not know any one that has yet obliged the Publick by giving an exact Figure of this stately Creature, which would be acceptable to the Curious, and very well worth the while of some of those ingenious Inquirers that go into those Parts for the improvement of *Natural History*: for I take it next the Elephant, to be the most remarkable *Quadruped* for its largeness in the World. However, in the mean time, by the help of the foregoing Accounts, we may easily form to our selves a lively and just Idea of its *Figure* and *Size*; and if we compare the several Parts of those Discriptions, with the Beasts whose heads are found here in *Ireland*; we shall not have the least Reason to question but these vastly large *Irish Deer* and the *American Moose*, were certainly one and the same sort of Animal, being all of the *Deer Kind*, carrying the same sort of *Palmed Horns*, which are of the same *Size* and *Largeness* as well



as *Figure*; and the *Bulk* of their *Bodies* corresponding exactly in Proportion to the wide spreading of their *Horns*. So that we may securely assert, that *Mooses* formerly were as frequent in this Country, as they have them still in the Northern Parts of the *West Indies*, *New-England*, *Virginia*, *Maryland*, *Canada* or *New-France*.

And least we may think this Animal peculiar to the *Continent*, and not to be found in *Islands*; I lately met with a remarkable Passage in *John de Laet's French Description* of the *West-Indies*, that clearly shews the contrary; which, because it likewise illustrates and confirms what was said before, I'll set down in his own Words. Speaking of *New-England*, says he; *I'l y a une certaine sorte de Beste frequente en ces Pais que les sauvages noment Mose, de la grandur d'un Taureau, ayant la Teste d'un Dain, avec les cornes larges que muent tous les ans, le Col comme une cerf: il se trouve une grande quantite de ces animaux en une Isle pres de la Terre Ferme appelle des Anglois Mount Mansel.* That is, *There is a certain sort of Beast common in this Country, which the savage Indians call a Moose, as big as a Bull (he had not seen I suppose those of the largest Size) having the Head of a Buck, with broad Horns, which they cast every Year, and the Neck of a Deer: there are found also great Numbers of these Animals in an Island near the Continent call'd by the English, Mount Mansell.*

This may give us reasonable grounds to believe, that as this Island of *Mount Mansell* must of necessity had some Communication with the Main Land of *America*, to have been thus plentifully stockt with this sort of Beast; so *Ireland*, for the same Reason, must in the many past Ages, long before the late Discovery of that *New World*, had some sort of Intercourse with it likewise, (though

'tis



'tis not easy, I acknowledge, for us at present to explain how) for otherwise I do not see, how we can conceive this Country should be supply'd with this Creature, that for ought I can yet hear, is not to be found in all our Neighbourhood round about us, nay, perhaps in any other Part of *Europe, Asia* or *Africa*: And then 'tis certain as *Ireland* is the last or most Western part of the *Old World*; so 'tis nearest of any Country to the most Eastern Parts of the *New-Canada, New-England, Virginia, &c.* the great Tract of Land, and the only one I yet know, remarkable for plenty of the *Moose-Deer*.

And we may observe yet farther, That a sort of Alliance between these Countries of *Ireland* and the *West-Indies*, appears likewise in other things, of which they partake both in common. For as they on the Coast of *New-England* and the Island *Bermudas* gather considerable Quantities of *Amber-greese*; so on the Western Coast of *Ireland*, along the Counties of *Sligo, Mayo, Kerry* and the Isles of *Arran* they frequently meet with large parcels of that precious Substance, so highly valued for its Perfume. In the Year 1691. Mr. *Constantine* an Apothecary of *Dublin*, shewed me one piece of *Amber-greese* found near *Sligo*, that weigh'd Fifty Two Ounces; he bought it for Twenty Pound, and sold it in *London* afterwards for above a Hundred. On the out-side 'twas of a close compact Substance, Blackish and shining like Pitch; but when it was cut the inside was more porous, and something of a Yellowish Colour, not so Grey, close and smooth as the cleanest and best sort of *Amber*; but like it, speckled with whitish Grains, and of a most fragrant Sent; I have still a Piece of it by me, that weighs above Six Drams, with several Samples of Three or Four other sorts of *Amber*, all found on that Coast of *Ireland*; some entirely black as Pitch, others

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of



of a perfect White Substance, exactly answering the Description of that sort of *Amber*, *Olaus Wormius* mentions in his *Museum*, Page 34. under the Name of *Ambræ Griseæ nondum maturæ*.

Nor is the kind of *Whale-Fish* that's often taken in *New-England*, and affords the true *Sperma Ceti* a Stranger to the Coast of *Ireland* that respects *America*. This we may properly, I think, with *Dr. Charleton*, call the *Cetus Dentatus*, from its large, solid, white *Teeth*, fixt only in the lower Jaw; to distinguish it from that *Species* that gives the *Whale Bone*, most naturally named by *Aristotle* in his *Historia Animalium Mysticetus*, from its bearded, horny *Laminæ* in the Roof of its Mouth: of which kind likewise there have been Three or Four stranded in my time; but on the *Eastern Coast* of this Country that regards *England*.

This *Cetus Dentatus* is faithfully described by *Carolus Clusius*, in his Sixth Book of *Exotics*, Chapter the 17th, under the Name of *Cete, aliud admirabile*; and truly figured by *John-stonus* in his *Historia Piscium*, Table the 42d. and by *Mr. Ray* in his *Ichthyographia*, Table the 1st. but by both under the too general Name of the *Balena*. There have been Three of this Kind taken to my Knowledge, in the Space of Six Years, all on the Western Coast of this Country; one near *Colerane*, in the County of *Antrim*; another about *Ship-harbour*, in the County of *Donnegall*; and a Third in *August*, 1691. Seventy one Foot long, exceeding that described by *Clusius*, Nineteen Foot, towards *Bally-shannon*, where *Lough-Erne* discharges its Waters into the Western Ocean.

And then it was, I had an Opportunity of truly informing my self what sort of Substance *Sperma Ceti* is, and



and in what Part of the Whale 'tis found : concerning which Matter, Physicians and Naturalists have given the World such various and false accounts; and 'tis truly nothing else, but part of the *Oyl* or liquid *Fat* of this particular sort of *Whale* ; which *Oyl*, at first when confused and mixt, shews it self like a *Whitish Liqueur*, of the Consistence and Colour of *Whey* ; but lay'd by in Vessels to settle ; its parts by degrees separate, that which is lighter and swims a top, becomes a clear *Oyl* pellucid like Water, serviceable for all the uses of common *Train-Oyl*, got out of the Blubber of other Whales, and that which subsides, because 'tis heavier and of a closer Consistence, candies together at the Bottom, and is what is sold for *Sperma Ceti*, at Twelve Shillings the Pound ; when 'tis throughly blanched and refined from all its filth and the remaining parts of the *Oyl*, that otherwise discolours it, and gives it a rancid offensive Sent. Of this Substance several Hundred Pound Weight may be gotten out of one *Whale*, but the cleansing and curing of it is troublesom, and requires no small Art, Time and Charge ; which occasions the value of that which is throughly refined : The Fat of the whole Body affords it, but that of the *Head* gives the greatest Quantity and purest *Sperma Ceti*.

I have some reason to believe to these Instances of the *Moose Deer*, *Amber-greese* and *Sperma Ceti*, of which *Ireland* partakes more than any other Country of *Europe* from its Neighbourhood with the *Northern America*, we may likewise add some of our more rare *Spontaneous Plants*, because they are found growing only in those Western Parts of *Ireland*, and no where else in this whole Country, or any of the Neighbouring Kingdoms about us.



I shall mention but Two or Three of many which I have been told are peculiar to those parts, because I am not yet well assur'd of the certainty of the others being so: and those are the *Arbutus sive Uredo*, or the *Strawberry Tree*; not to be found any where of *Spontaneous Growth* nearer than the most Southern Parts of *France, Italy and Sicily*; and there too, 'tis never known but as a *Frutex* or *Shrub*: whereas in the Rocky Parts of the County of *Kerry* about *Loughlane*, and in the Islands of the same *Lough*, where the People of the Country call it the *Cane Apple*, it flourishes naturally to that Degree, as to become a large tall *Tree*. *Petrus Bellonius* in his First Book of *Observations*, Chapter the 43d, takes notice, it does so in Mount *Athos* in *Macedony*; and *Juba* is quoted by *Pliny* in the Fifteenth Book of his *Natural History*, Chapter the 24th, as mentioning a thing extraordinary, for saying the *Arbutus* grows to a high *Tree* in *Arabia*; the Trunks of those in *Ireland* are frequently Four Foot and a half in Circumference, or Eighteen Inches in Diameter, and the Trees grows to about Nine or Ten Yards in Height; and in such plenty that they now cut them down, as the chief Fuel to melt and refine the Ore of the *Silver* and *Lead Mine*, lately discovered near the Castle of *Ross*, in the County of *Kerry*.

The other Plant I shall take Notice of is *Cotyledon, sive Sedum serratum Latifolium Montanum guttato flore Parkinsoni & Raii*, vulgarly call'd by the Gardners *London Pride*: I suppose because of its pretty elegant Flower; that viewed near at hand and examined closely, appears very beautiful, consisting of great Variety of Parts: The whole Plant is most accurately described by that profound Naturalist Mr. *Ray*, in his *Historia Plantarum*, Page 1046. where speaking of the Place where



where it grows, he has these Words: *Planta in Hortis nostris frequentissima est, ubi tamen Sponte oritur nobis Nondum constat, est autem proculdubio Montium incola* (f). Though he knew no certain place where it grew *Spontaneous*, not having met with it in all his Travels; nor any Author mentioning its native Country, yet he rightly conjectures 'tis a *Mountainous* Plant, for it grows plentifully here with us in *Ireland*, on a Mountain call'd the *Mangerton* in *Kerry*, Six or Seven Miles over, and reputed the highest in *Ireland*, Two Miles from the Town of *Killarny*, and Four Miles from the Castle of *Ross*: Here it spreads it self so abundantly, as to cover great part of the Mountain, and for as much as I understand, like the *Arbutus*, 'tis peculiar to this County alone.

Whether both the foregoing *Plants* are truly *American*, I cannot at present determine, but this I know, that *Sabina Vulgaris*, or *Common Savin* is mentioned by Mr. *Josselyn*, in the Book before quoted, as a Plant common on the Hills of *New-England*; and I have been assured by an *Apothecary* of this Town, that he has gathered *Savin* growing wild as a native Shrub in one of the Islands of *Lough-Lane*, in the County of *Kerry*; and so, I have reason to believe, that hereafter farther Inquiry may add to these I have given, several other Examples of Things Natural and Common to that and this Country.

But to leave these Digressions and return to our *Large Irish Deer*, which well deserves we should affix to it some Characteristick Note or Proper Name,

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(f) That is, 'tis a Plant common in our Gardens; but where it grows naturally is not as yet known to us, but certainly 'tis an Inhabitant of the Mountains.



whereby it may stand ranged hereafter in its right Place in the History of Animals : since Nature her self seems by the *Vast Magnitude* and *Stately Horns*, she has given this Creature, to have singled it out as it were, and shewed it such regard, with a design to distinguish it remarkably from the common Herd of all other smaller *Quadrupeds*. Naturalists have rais'd much Dispute, what Beast it truly is, that has had the Name given it by some of them, of *Animal Magnum*; *Dodonæus*, *Mennabenus*, and others, would have it the *Elcke*; *Scaliger* would have it the *Bisons* of *Pliny*, whether 'twas one or t'other, or neither, I shan't determine; nor do I the least suspect that this *our Animal* was meant by it; however, for its goodly Size and lofty Stature, and to retain something of an Old Appellation, I think it may very well lay claim to it, and not improperly be call'd, *Cervus Platyceros Altissimus*; sive *Animal Magnum Cornibus Palmatis, incolis Novæ Angliæ & Virginiae, ubi frequens, Moose dictum.*

III. Part of a Letter from Mr. Antony van Leuwenhoeck, dated Apr. 5. 1697. giving an Account of several Magnetical Experiments; and of one who pretended to cure or cause Diseases at a Distance, by applying a Sympathetick Powder to the Urine.

I Have for many Years made divers Observations about the Loadstone, but made no Deductions from them but for some Months last past, having Two Load-