

28. The Art of making *Sea-Water fresh* and potable, and fit for all uses in Food and Phyfick at Sea.

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III. *A Letter from Sir Robert Redding, late Fellow of the R. S. concerning Pearl-Fishing in the North of Ireland; communicated to the Publisher by Dr. Lister. R. S. S.*

Dear S I R,

Being in the North in *August* last, and calling to remembrance your Desires to have some of the Muscle-shells sent you wherein the Pearls were found, I stayed behind my Company one day like an old Hound from following the Stag, and bestowed it in Enquiries from others, and some small Trials in the Rivers; but having by me neither Queries to direct my Search, nor Books to inform me what had been delivered by others on this Subject, I must needs fall short in those Points that are most curious and most wanting, and take notice only of what is too common and most known in the Natural History of this Shell-fish.

I have sent you four or five of the Shells, and a few of the Pearls, though clouded and little worth, taken out of the River near *Omagh* in the County of *Tyrone*, in which County are four Rivers abounding with these Muscles, all emptying themselves into *Lough foyle*, whereon stands the Town of *Derry*, and so into the Sea. There are also other Rivers in the County of *Donegall*, a River near *Dundalk*, the *Shure* running by *Waterford*, the *Lough* called *Lough-Lean* in *Kerry*, which afford the like Fish; and no doubt there be many more that I do

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not know : All these places are at the feet of very great Mountains.

The manner of their Fishing is not extraordinary, the poor People in the warm Months before Harvest is ripe, whilst the Rivers are low and clear, go into the Water, some with their Toes, some with wooden Tongs, and some by putting a sharpned Stick into the opening of the Shell take them up : And although by common Estimate not above one Shell in a Hundred may have a Pearl, and of those Pearls not above one in a Hundred be tolerably clear, yet a vast number of fair Merchantable Pearls, and too good for the Apothecary, are offered to Sale by those People every Summer Assize. Some Gentlemen of the Country make good Advantage thereof, and my self whilst there, saw one Pearl bought for 50 Shillings that weighed 36 Carats, and was valued at 40 *l.* and had it been as clear as some others produced therewith, would certainly have been very valuable. Every body abounds with stories of the good Pennyworths of the Country, but I will add but one more: A Miller took out a Pearl which he sold for 4 *l.* 10 *s.* to a Man that sold it for 10 *l.* who sold it to the late Lady *Gleanly* for 30 *l.* with whom I saw it in a Necklace ; she refused 80 *l.* for it from the late Dutchess of *Ormond*. I was informed that in the course of the River of about Sixteen Miles, there were many deep Pools, which could never have been searched by these unmechanical People, for whom I made a Dredge with some Teeth in the Knife of it to rake them out of the Sand, and in that only particular differing from the common Oyster Dredge ; as also little Hand-dredges, not unlike what I had seen Men in the River of *Thames* taking up Ballast with.

I took up many young Muscles, but these have never any Pearl in them, and do think to get some Pond or small Brook by the Rivers side to preserve them in, rather than to destroy them unprofitably.

The Natives, though very foul Feeders, will not eat the Fish, which seems to me to cut like the Oyster, blackish green; and were it not too great a Digression from the Subject, and too offensive to good Stomachs, I could entertain you with their last *Lenten* Fare, when Horse-flesh dead of Diseases, and the Blubber of a Whale cast up by chance, (when it would fly upon the opening of the Bung-hole of the Barrel like Bottle Beer) was sought for, and begged for Food, so lazy and improvident many of them are. The Shell is fastned with two Cartilages, one at each end, whereas the Oyster and Scallop are with one only in the middle. The natural Posture they keep to, neither lying on the side, as those I saw, or set up in the Sand like Eggs in Salt, with the sharp end downwards, and the opening side turned from the Torrent, as the People say, I leave to be further enquired into; but I saw them lying in part opened, and putting forth their White Fins like a Tongue out of the Mouth, which directs the Eye to them in the Water, being otherwise black as the stones in the River.

The backs of the Shells just about the Hinges on which the Valves do open are all broken and bruised both young and old, and shew the several Crufts and Scales that make the Shell, and is caused (I think till I know better) by the many great stones that are driven over them by the Floods which are most impetuous after any little Rain.

You will observe the in-sides of the shells are of an Oriental and Pearly Colour and substance like a flat Pearl, especially when first opened; and I was told by an ingenious Person living upon the place, that he had observed

observed in some shells under the first Coat a Liquor that was very orient and clear, that would move upon the Pressure of the Finger, but that such a Muscle never had Pearl, which Liquor I should think was the true Mother of Pearl.

The part where the Pearl lieth is in the Toe or lesser end, at the extremity of the Gut, and out of the body of the Fish between the two Films or Skins that line the shell : I was careful to leave one Pearl in its Bed ; but the Fish stinks so extremely and so soon, and shrunk into nothing, that I fear it will be hard to preserve the parts entire for the Inspection.

I believe that this Pearl answereth to the Stone in other Animals, and certainly like that encreaseth by several Crufts growing over one another, which appeareth by pinching the Pearl in a Vice, and the upper Coat will crack and leap away ; and this Stone is cast off by the Muscle, and voided as it is able ; and many shells that have had Pearls in them are found now to have none, which will appear by these instances. The shells that have the best Pearls are wrinkled, twisted or bunched, and not smooth and equal as those that have none, as you may observe by one of the Shells herewith sent, of a lighter Colour than the rest ; this shell yielded a Pearl sold for 12 *l*. And the crafty Fellows will guess so well by the shell, that though you watch them never so carefully, they will open such shells under the Water, and put the Pearls in their Mouths, or otherwise conceal them. That same person told me, that when they have been taking up shells, and believed by such signs as I have mentioned, that they were sure of good purchase, and refused good Sums for their shares, that yet they found no Pearl at all in many of them. Upon Discourse with an old Man that had been long at this Trade, he advised me to seek not only when the Waters were low, but in a dusky gloomy day also,  
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Left, said he, the Fish see you, for then he will shed his Pearl in the sand: Of which I believed no more, than that some Muscles had voided their Pearls, and such are often found in the Sands.

I conceive that these Pearls if once dark will never be clear upon any alteration in the Health or Age of the Muscle, or of the Moon; and that if the first Seed be black, all the Coats superinduced will be still clouded; but yet would be glad to be directed in any further Enquiry of any amendment that may be made by the Season of the Year, Age of the Moon or Fish, or place in the Rivers, the bottoms whereof I observed to be part sandy, part stony, and part ousey, and of a black Clay.

It may be also considered, whether brackish Water will alter the Colour; for many Muscles are driven down the Rivers Four or Five Miles within the flowing of the Tide, namely, to a place called the *Grabbins*, where the greatest Salmon-fishing is next to that of *Colerain*.

You will observe the same Pearl clear at one end, and dark at the other; it may be enquired whether the Colour ever changed from one to the other, or was primigenial, as they still continue. I shall desire your kindness in sending me some Heads of Enquiries, for I have many Acquaintance upon the place, with Directions how I may preserve the Muscle to send you, and whether such dark Pearl may not be as proper for the Apothecary as other more clear, and what better Engines you can direct us unto to take them up with, no place being deeper than 12 Feet.

I send you also herewith some Stones of an Amber Colour taken out of a Spring called *Crawbourn-Spring*, near *Lough-Neab*, which the Country-People tell us grow at the end of a little Rush, and drop off, and are

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to be found only on *May* day Eve, and good for God knows what : They look like the Germinations of some of your Salts, but in the Fire shewed no signs thereof by crackling ; they are Electrical and Angular, and being pounded, the Powder is white. I have several Stones and Minerals by me, which if I knew were acceptable to you, should be sent forwards ; but I would gladly first be assured you are not displeas'd with these Trifles from

Dublin, Oct. 13.  
1688.

Tours, &c.

IV. *An Account of two Plants lately brought from the Cape of Good-hope, communicated by Dr. Sloane, R.S.S.*

**A**lderman *Charles Chamberlain* having favoured the Royal Society to present them (among other natural Rarities) with two Branches of Trees and their Fruits, brought from the *Cape of Good-hope* by Mr. *God-dard*, which being very curious, and are not yet any where perfectly described, it was thought fit to publish their Figures and Descriptions ; and that the rather, because the first of them has been brought hither for its Beauty in Pots, as well as raised in *England* from the Seed brought from the *Cape of Good-hope*, where it is called the *Silver Pine*.

*Conifera salicis facie, folio ☉ fructu, tomento sericeo, candicante, obductis, semine pennato.*