

An answer to some Quæries proposed by Mr. William Molyneux, concerning Lough-Neagh: by Mr. Edward Smyth, Fellow of Trinity Colledge in Dublin.

1. **W** *Hether Lough-Neagh hath really the quality of petrifying Wood?* To this I answer, that no experiment, or observation yet made, (that I can hear of) can prove the *Lough* has this petrifying quality; or that the water do's any way help or promote the petrification; for that two experiments made by a Gentleman of worth and good credit (whose Estate lies contiguous to the *Lough*, and whose curiositie prompted him to a more diligent search into this matter) plainly prove the contrary. For about 19 years ago, he stuck two *Holly-Stakes* (a wood which all agree will soonest petrifie in this *Lough*) in two severall places of the *Lough*, near that place where the upper *Band* enters into it; and that part of the stake, which for so long time has been washed by the water, remains there without any alteration, or the least advance towards petrification; as for that part of the stake which is covered by the mud or earth, he has not yet looked on it, but promises to do it this Summer, taking advantage of the fall of the *Lough*, and that too, which report make's the weakest, and most unfit for this operation, may seem not to conclude universally of the whole *Lough*; yet are a reasonable cause of doubting that, which ought to be, yet never was backed by any faithfull experiment; and I therefore believe it fabulous; for that had the *Lough* any such Vertue, it would most probably be diffus'd in some measure through the whole. This is true of those *Lakes* whose peculiarities are related by *Varenius*; and this seems evident

vident from the very nature of liquid bodies; for the parts of all liquid bodies being in a constant motion, and mixing with one another, any Vertue received in one part, must necessarily be diffus'd through the whole, at least in some degree, but the stakes in this experiment had not suffered the least alteration last Summer, though they had been almost three times seven years in the water.

2. *Whether this Qualitie be equally diffus'd throughout the whole Lough, or be more strong in any particular parts thereof?* Because there have been no certain experiments made upon all parts of the *Lough*, and much time required to make this tryall we cannot expect a speedy resolution of this Quæry; Report for the West side, and Dr. *Boat* (an Author for whose fidelity I vouch not) in his *Natural History of Ireland*, tells us that as his Brother informed him, who lived in those parts, that water has especially this Virtu about those places, where the *Black water* discharges it self into the Lake, but confesses he never could find any person who himselfe had made the tryall, and therefore had this information from report, or some other way equally uncertain: so that there is still good reason to believe the water is wholly destitute of this petrifying qualitie.

3. *What woods are petrified by the Lough? or whether only Holly.* That not only *Holly*, but also *Oak*, and some other wood has been petrified about this *Lough*, and in the soil adjacent, I have sufficient grounds to conjecture on this account; because some Fishermen, being tenants of a gentleman from whom I had this relation, told him, they had found buried in the mud of this *Lough* great trees, with all their roots and branches petrified; and some of that bigness, that they believ'd they could scarcely be drawn by a team of Oxen. They broke off severall branches as big as a mans legg, and many bigger, but could not move the great trunk. If we may credit this relation, we must allow some other

woods to be petrified beside *Holly*, for *Holly* never grows to that bigness; the largest trees being scarcely by a third part so big; so that allowing for the unexactness and unfaithfulness of the Fishermens relation; we have grounds to believe this wood was other then *Holly*; my cheif reason for guessing it *Oak* is the bulk; no trees in that country, these excepted, growing to that prodigious bigness: besides there is much timber found in the mud on sand on the banks, such as Deal, &c. but no *Oak*, so that I believe what *Oak* was undermined by the water, was covered with mud, and so petrified into Stone, and of this sort might that be which the Fishermen found; for if some part of that ground which is now covered by the water, was formerly wood, as is on good grounds believed by those that live therabouts, as it is probable there was much *Oak* in the wood, so it is probable there is much buried in the *Lough*; Deal, and other trees are found here without any alteration, but what they might suffer in any other water.

4. *Whether the wood or Holly, brought from other places, be as apt to be petrified, as what grows in the grounds adjacent to the Lough?* If, as I shall make out in my answer to the last Quæry, this vertue of petrifying does certainly, if not solely reside in the soil contiguous to this *Lough*, most certainly trees that imbibe some of this petrifying Vertue, or these Lapideous particles with their nourishment, as being already dispos'd for it, will be more easily altered into stone.

5. *What time is requisite to petrify a piece of a determinate bigness,* I heard of no experiment which can resolve this Quæry, but what report tells us of seven years is certainly a fable as to the water, I know of no body who has made tryall of the soil.

6. *Whether any has seen the same body partly wood and partly Stone?* I was informed by two Gentlemen of the North, that this may be frequently seen, who alledged they

they themselves had seen the same body, wood, and stone. But the only reason for thinking so, being the diversity of colours which might well enough proceed from severall degrees of petrification, we may probably think them deceived: for they made no experiments on that part which they reputed wood. They further told me that part of the body which touched the surface of the water was the partition between the petrified and unpetrified part of it; this further confirms me, they were impos'd on. This stone had been often found one part of it rotten and petrified, the other remaining firm and usefull: but this it has common with other stones: whether it became rotten in the wood, or stone, may be doubted.

7. *Whether the Bark has been seen petrified, as well as the Wood?* The *Bark* is never found petrified, as I am informed by a diligent Inquirer, but often something rotten about the stone answerable to the *Bark*.

8. *Whether any one has certainly made experiment of the Loughs petrifying, by putting a piece of wood therein, and there letting it ly till it was petrified?* Several pieces of *Holly* have been put into the *Lough*, but none, that I ever heard of, was ever taken out in any wise altered.

9. *Whether there be any Sand-pits nigh about the Lough in which these pieces of wood (we esteem petrified) are found?* I never could hear of any such Sand-pits, nor that this petrifying Vertue was stronger in any such places; there is a greater quantity of these stones found in the adjacent ground, and when ground is newly broke, ordinarily turned up in plowing.

10. *Whether the Earth, or Sand about this Lough be indued with this Qualitie?* That this Virtue is certainly, if not only, in the ground or soil I judge for these reasons, that there are many stones turned up daily especially at their breaking up new ground; which we cannot in any probabilitie think were brought thither; they are often

found at two miles distance from the *Lough*, seldom further, in great numbers, and very deep in the ground; now for what use and reason they should be brought thither I can't imagine: but because there may be exceptions against this reason I shall produce another; which I believe will plainly prove this assertion, it being matter of fact. The Gentleman on whose credit I received this information, had occasion one day to survey a part of his own land, and at a small distance from the *Lough*, he saw a stump of a tree just digged out of the ground, which by handling of it he found petrified; his Servant that digged it up, standing by him, told him he had just rooted it out of the ground: he assured me the roots and all were stone, and altogether like those stones that are ordinarily found and go by the name of *Lough-Neagh* stones. This certainly proves the soil to have this petrifying Vertue, which was never yet proved of the water. This Gentleman was of opinion these were *Lapides sui generis*, till this observation convinced him: and I believe the wood, which I before mentioned that was found by the Fishermen *petrified*, owes its petrification to the soil and not to the water. But that these stones were once wood is I think very certain, for they shew the plain *vestigia* of wood, they likewise burn, cleave; filings of this stone thrown in the fire emitt a fragrant smell: they cut kindly with a knife, though not so easily, as other wood: but had they none of these properties, the instance now alledged, I think, is as convincing as Demonstration.