

than sufficient to make two Mills work. Great Land Floods generally happen only once in 3, 4, or 5 Years; and there are many Thousands of Tuns of Sand and Gravel cast into the Sea every Summer, within about three Quarters of a Mile off from *Sunderland-Bar*; a great Part of which the Sea throws a-Shore upon, and near to, the Entrance of the River *Wear*, and Port of *Sunderland*; so that the present Reflux (though the Spring Tides flow near Twelve Miles up the River) is barely sufficient to drive the Sand away, and maintain an indifferent Entrance; but if the Tide was stopped, (by a Dam as above) from coming up the River but for three Months, the Sand and Gravel would be thrown by the Sea, as high upon *Sunderland Bar*, as any other Parts of the Shore, save a very small Shallow Gut made by the upland fresh Stream, which would not receive a loaden Keel (much less a Ship) to sail into or out of *Sunderland Harbour*, except for about two Hours on the Top of Spring Tides. For,

It is evident the Flux and Reflux of the Sea, near the Land, make but a very weak Current directly toward the Land, or directly off to Sea, save where there is a considerable Receiver within the Land, like *Portsmouth Harbour*, *Southampton River*, &c. and the greater the Indraft, the greater Distance from the Shore doth it begin at. And if a Dam is made a-cross a River Six Miles up from the Sea, and stop the Indraft or Tide there, which usually flowed 10 or 12 Miles up the River; by this Dam the End of the Flux Stream would be only six miles from the Sea, instead of twelve; consequently six Miles length of Stream will not only be lost to the Navigation, but the Indraft or Inset and Outset will be will be much weakened, so that Vessels will lose the great Advantage of a strong Inset to carry them into the Harbour against strong off-Shore Winds, which