

testaceous animals growing equally well in salt water, and in water nearly fresh ; and, again, fresh water animals living in salt water *. By artificial means the inhabitants of the sea may be changed into inhabitants of fresh water ; as fresh-water animals are, in their turn, converted into marine animals, so that, to decide concerning the proper element of each individual species is often matter of difficulty. Therefore, other circumstances besides that of containing salt must be taken into account. The occasional plenty, scarcity, or absolute want of food ; the soil being sometimes sandy, slimy, or rocky ; the depth, extent, agitation or tranquillity of the water ; and, finally, the quality of the air contained in it, may be as instrumental in determining the habitation of these animals, as the materials which the water holds in solution. An excellent observer has indeed very lately shewn in a treatise, which supports the idea of fresh-water formations, that we possess no unerring character for distinguishing sea shell-fish from those of fresh water ; but admitted, notwithstanding the transition above stated, we can draw a line of distinction between them, we must not forget that this investigation is neither regarding sea shell-fish now existing, nor of our present waters. We indeed draw our conclusion, and not without reason, from similar conformation, similar modes of existence. But one of two things must be ; either that the shell-fish, whose remains are found in beds of rocks, lived in the water out of which these beds were precipitated, or the water in which they lived, was dislodged by other water containing the

* In the salt lakes of Westphalia, we find *Lymnæa* and fresh water plants in abundance.