

place of the true caudal fin, however, we may detect with the assistance of a lens, an internal framework with two well-marked lobes, and ascertain, further, that this tail is set on awry, — the effect of a slight upward bend in the creature's body. And when viewed in a strong light as a transparency we perceive that the spinal cord takes the same upward bend and, as in the sturgeon, passes in an exceedingly attenuated form into the upper lobe. What may be regarded as the *design* of the arrangement is probably to be found in the peculiar form given to the little creature by the protuberant bag in front. A wise instinct teaches it, from the moment of its exclusion from the egg, to avoid its enemies. In the instant the human shadow falls upon its pool, we see it darting into some recess at the side or bottom, with singular alacrity; and in order to enable it to do so, and to steer itself aright, — as, like an ill-trimmed vessel, deep in the water ahead, the balance of its body is imperfect, — there is, if I may so express myself, a heterocercal peculiarity of helm required. It has got an irregularly-developed tail to balance an irregularly-developed body, as skiffs *lean* on the one beam and *full* on the other require, in rowing, a cast of the rudder to keep them straight in their course.

Sinking altogether, however, the final cause of the peculiarity, and regarding it simply as a *fatal* one, that indicates a certain stage of imperfection in the creature in which it occurs, on what principle, I ask, are we to infer that what is a sign of immaturity in the young of one set of animals, is a mark of inferior organization in the adult forms of another set? The want of eyes in any of the animal families, or the want of organs of progression, or a fixed and sedentary condition, like that of the oyster, are all marks of great inferiority. And yet, if we admit the principle, that what are evidences