

*Ostrea*, *Chitones*, and other sedentary animals, they seemed to have adhered together in vast clusters, trilobite over trilobite, in the hollows of submarine precipices, or on the flat, muddy bottom below. And such were the master existences of three of the four Silurian platforms, and of the greater part of the fourth, if, indeed, we may not regard the chambered molluscs, their contemporaries, — creatures with their arms clustered round their heads, and with a nervous system composed of a mere knotted cord, — as equally high in the scale. We rise to the topmost layers of the system, — to an upper gallery of its highest platform, — and find nature mightily in advance.

Another and superior order of existences had sprung into being at the fiat of the Creator — creatures with the brain lodged in the head, and the spinal cord enclosed in a vertebrated column. In the period of the Upper Silurian, fish properly so called, and of very perfect organization, had become denizens of the watery element, and had taken precedence of the crustacean, as, at a period long previous, the crustacean had taken precedence of the annelid. In what form do these, the most ancient beings of their class, appear? As cartilaginous fishes of the higher order. Some of them were furnished with bony palates, and squat, firmly-based teeth, well adapted for crushing the stone-cased zoöphytes and shells of the period, fragments of which occur in their fœcal remains; some with teeth that, like those of the fossil sharks of the later formations, resemble lines of miniature pyramids, larger and smaller alternating; some with teeth sharp, thin, and so deeply serrated that every individual tooth resembles a row of poniards set upright against the walls of an armory; and these last, says Agassiz, furnished with weapons so murderous, must have been the pirates of the period. Some had their fins guarded with long