

deposit of full ninety feet had overlain the conglomerate, the depth became still more profound than at first. A fine, semi-calcareous, semi-aluminous deposition took place in waters perfectly undisturbed. And here we first find proof that this ancient ocean literally swarmed with life—that its bottom was covered with miniature forests of algæ, and its waters darkened by immense shoals of fish.

In middle autumn, at the close of the herring season, when the fish have just spawned, and the congregated masses are breaking up on shallow and skerry, and dispersing by myriads over the deeper seas, they rise at times to the surface by a movement so simultaneous, that for miles and miles around the skiff of the fisherman nothing may be seen but the bright glitter of scales, as if the entire face of the deep were a blue robe spangled with silver. I have watched them at sunrise at such seasons on the middle of the Moray Frith, when, far as the eye could reach, the surface has been ruffled by the splash of fins, as if a light breeze swept over it, and the red light has flashed in gleams of an instant on the millions and tens of millions that were leaping around me, a handbreadth into the air, thick as hail-stones in a thunder-shower. The amazing amount of life which the scene included, has imparted to it an indescribable interest. On most occasions the inhabitants of ocean are seen but by scores and hundreds; for in looking down into their green twilight haunts, we find the view bounded by a few yards, or at most a few fathoms; and we can but calculate on the unseen myriads of the surrounding expanse by the seen few that occupy the narrow space visible. Here, however, it was not the few, but the myriads, that were seen—the innumerable and inconceivable whole—all palpable to the sight as a flock on a hill-side or, at least, if all was not palpable, it was only because sense