

It is interesting to observe the careful and cautious progress of Geology, as in other respects, so in this. Seven years before the publication of Mr. Murchison's work, Mr. De la Beche had treated this subject with his characteristic judgment and sagacity. I will cite a few paragraphs, as specimens of the penetration and anticipations of his geological mind, while the facts of the case were not as yet brought clearly to light; and with a wish also to excite my readers to peruse the whole passage. It must be premised that the German term *grauwacke*, now generally disused, must be understood as the same with, or including, the Silurian System.

"Although, when we regard the mass of the *grauwacke* rocks, we are struck with the *minute proportion* that organic remains bear to the whole, we must still perceive that the atmosphere was capable of supporting vegetation; and the seas of sustaining zoophytes, crioidea, annulata, conchifera, mollusca, crustacea, and fish. What other creatures existed, we are unable, *from the absence of their remains*, to judge: it may however be by no means unphilosophical to conclude that vegetation did not exist alone on dry land, but that, consistently with the general harmony of nature, it afforded food to terrestrial creatures suited to the circumstances under which they were placed." [Yet no vestiges of such creatures have been found.] — "Whatever the kind of animal life may have been which first appeared on the surface of our planet, we may be certain that it was consistent with the wisdom and design which has always prevailed throughout nature; and that each creature was peculiarly adapted to that situation designed to be occupied by it." Geological Manual; third ed. pp. 428, 429; 1833.

I hope I shall not give pain to a very kind friend whose qualifications make him one of the safest authorities, by transcribing a part of a letter with which he has favoured me. The certainty and accuracy of the remarks may be fully relied upon, and their application is extensively important.

"In the *older* fossiliferous rocks, animal life appears in as full a development with respect to *SIZE*, as in the existing analogous animals. The zoophagous cephalopods were also of gigantic growth. It does not appear that animal life, at that period, was limited with respect to *NUMBER*. The lowest Silurian rocks are crowded, in some localities, with organic bodies; and their absence over extensive districts is only a condition in the distribution of testacea, &c., which prevails in our seas. There are many coasts from which a reasoner, who had visited no other, might infer that marine animals are *now* few and small-sized; and, if he were a geologist, he might say, Life is on the decrease!" William Lonsdale, Esq. Sept. 7, 1839.