

The condition of these could be best explained by an illustration which, if desired, I shall be happy to draw.—EDWARD FIELDING.

LONDON, 22nd October, 1868.

NOTE.—We feel sure that Dr. Duncan will be glad to have attention called to his interesting paper on *Heterophyllia*, and also to have the testimony of so able an artist as Mr. Fielding to the accuracy of Mr. De Wilde's delineations. We are quite certain that he will himself be only too happy to re-examine a point upon which, possibly, something more may be determined.

Mr. Young, in his paper (GEOL. MAG., October, 1868, p. 451), says, if a coral had spines articulated at their bases, upon rounded tubercles, such a structure would be quite an anomaly in a zoophyte.

We must beg Mr. Young not to reject a discovery because it is anomalous. Palæozoic life-structures present many strange features. Whether we accept or reject the doctrines of evolution and descent with modification, we cannot fail to observe many forms which present what Prof. Owen has aptly termed "a more generalized type of structure," than representatives of the class now existing.¹

In illustration of this we would refer to an admirable paper which appeared in this MAGAZINE in 1866, Vol. III., p. 356, On *Zoantharia Rugosa*, by Dr. Lindström (with a Plate). The author shows that this remarkable group of corals (before referred in part to Corals, and in part to *Brachiopoda*) were all furnished with an operculum or valve! Surely this is a still more wonderful and anomalous structure in a coral, than the lateral spines on *Heterophyllia mirabilis*.

Nor should it be assumed that an appearance like that of a ball-and-socket joint necessarily implies movement; for we have among the *Echinodermata* (both fossil and recent) immoveable and moveable spines, the former of which, when removed, leave an appearance similar to that of the latter. Such structures—like rudimentary appendages—seem rather to indicate what the earlier state of the creature may have been, than what it now is.

Among the *Crustacea*, spines exist, which, like the immoveable spines of some Echinoderms, present an articular surface, not a fracture, when they are removed (*e.g.* the spines on the rostrum of *Palæmon* and on the margin of the thorax of *Limulus*).—
EDIT. GEOL. MAG.

SYNCHRONOUS AGE OF THE GRAYS AND ERITH BRICKEARTHS.

SIR,—In reference to the Brick-earth of Erith and Crayford, which, in my paper on the Post-glacial structure of the South-east of England, published in the 23rd volume of the Journal of the Geological Society, I regarded as being distinct from that at Grays, and of an age anterior to the main sheet of the Thames gravel, I shall feel obliged if I may be permitted, through your pages, to state that I have since satisfied myself that this was an error; and that, similarly to the Brick-earths of Grays and of the Lea valley, it belongs to the lower or fluviatile terrace of the Thames gravel formation (x 5' of my papers).

I have seen no reason to qualify any of the other opinions expressed by me in reference to the beds of the Thames, East Essex, and Canterbury heights gravel series.

SEARLES V. WOOD, JUNR.

BRENTWOOD, October 10, 1868.

[¹ We strongly recommend the perusal of Professor Huxley's Lecture "On the Animals which are intermediate between Birds and Reptiles" as bearing on this subject. See GEOL. MAG. August, 1868, p. 357.—EDIT. GEOL. MAG.]