

CORRESPONDENCE.

ON TERMINAL CURVATURE IN THE SOUTH-WESTERN COUNTIES.

SIR,—Notwithstanding its ten years' rest, this subject seems to retain its marrow as a bone of contention, judging from Mr. Mackintosh's letter in your last Number. Mr. Mackintosh seems to have mistaken the object of my paper, as I had of his; for had I known that "none" of the solutions proposed by him were "confidently advocated," by making the real object of my paper more prominent, and dwelling less upon his hypotheses, I might have appeared less controversial. The principal object of my paper was to deprecate the invocation of glacial action in explanation of phenomena otherwise more reasonably explainable, and especially so in districts where all direct proof of glaciation is wanting.

The keynote of my objection to all Mr. Mackintosh's explanations is struck in his declared scepticism in a "great surface waste and contour moulding" of the South-western Counties during Pleistocene times. How any geologist can calmly contemplate the distant table-land of the Blackdowns from its insulated remnant Haldon, and gazing across the broad valley of the Exe, excavated entirely since the accumulation of the clay with flints, deny the vast contour moulding and surface waste of Pleistocene ages, it is difficult to conceive. I can only regard the hypotheses alluded to by Mr. Mackintosh as untenable as regards the "Head" of Devon and Cornwall, having a very wide acquaintance of the facts, and feel that I must hide my diminished "Head" under some more congenial covering than an Arctic Sea or "immense ice-water lake." My idea of a greater elevation of land, accompanied by a more rigid expression of the present causes of subaerial waste, not only suffices to explain the formation of "Head" proper (*i.e.* the angular accumulation of stony loam intermediate in time between the elevation of the beaches and the submergence of the forests), but also fits into a necessary sequence of physical changes.

I do not believe in uniformity of direction of curved-back laminae, such directions being dependent on dip and strike of cleavage planes. The effect of roots in wedging off laminae is very local, seldom causing reversals extending more than a few feet from them. I must, in conclusion, apologize to Mr. Mackintosh for having misunderstood him about the direction of the cleavage planes on the northern slopes of Brendon Hill; my objection to ice-passage on the ground of the absence of terminal curvature, consistently with his theory, on the north slope, was based on the assumption that the laminae inclined in a southerly direction at a high angle, but not approximating to the vertical. Any apparent controversial spleen in the foregoing remarks must be attributed to that pardonable partiality for their own specialities generally exhibited by local geologists, and to no unfriendly spirit as regards Mr. Mackintosh.

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