

follow the junction of the red sandstone and transition districts, the trap must occur towards the lower part of the sandstone series: that it is, however, associated with the sandstone, and not, as might have been supposed from this circumstance, with the transition series, is said to be distinctly proved by clear instances of its alternation with the former. The points along which it occurs are, proceeding from north to south, 1. Near the mouth of the tongue of red marle which, as has been observed, penetrates among the greywacké chains towards Crediton, and close to its north edge, in a groupe of quarries lying near Killerton, Silverton, and Thorverton. 2. On the south edge of the same tongue of red marle at Upton Pyne, Poltimore and Poucham. 3. A little north-east of Exeter, and again south-west of it in going to St. Ides. 4. Near Dun-chidiok. (C.)

Dr. Berger gives the following particulars of this rock.

At Upton Pyne, a village five miles north of Exeter, the same conglomerate as that found at Heavitree, occurs beneath

whole contents of this breccia have been furnished by the inferior rocks of its immediate neighbourhood, by those, perhaps, whose edges are yet covered by it at a depth to which our labours and investigations have but little chance of penetrating.

You will scarcely need to be reminded that Mr. Leonard Horner arrived at a like conclusion from his examination of the rock marle and adjacent strata in Somersetshire. § It struck me as singular that among the fragments which fell under my inspection I observed no traces of hornblende rock, or greenstone, although the latter especially, and in some instances small portions of the former are to be found on the borders of Dartmoor. The cliffs of Henoch present so large and striking a specimen of greenstone as long ago to have attracted notice, and the town of Bovey Tracey stands on a rock of the same nature.

I forbear to speculate on the probability that the whole extent of the red marle was produced by the degradation of the rocks which have left their fragments still imbedded in its mass. The total absence of those organic remains, which occur so abundantly in the strata immediately below as well as above, and the general want of consolidation in its various and heterogeneous beds, certainly argue that its formation took place under different circumstances, and by a different process from that of the subjacent slate and limestone, or the superincumbent lias. The strata at Dawlish are not everywhere of uniform thickness; they dip at an angle hardly exceeding 15° to south-east by south. On this coast they are usually capped by the debris of the green-sand formation which covers the neighbouring heights of Haldon. At Dawlish these debris are much more plentiful than at Teignmouth. It may be remarked, that while they cover so large a space towards the coast, they are of much scarcer occurrence on the plain of Bovey, which lies under the opposite declivity of Haldon. Some, however, apparently water-worn, are found on that tract. I cannot conclude without expressing a wish that the whole extent of this formation were carefully examined by some abler and more instructed observer.

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§ See Geological Transactions, vol. iii.