

racy, the true place in the geological series of these slate-rocks and limestones of South Devon, had not Messrs. Sedgwick and Murchison, in 1836 and 1837, discovered that the culmiferous or anthracitic shales of North Devon belonged to the Coal, and not, as preceding observers had imagined, to the "transition" period.

As the strata of South Devon here alluded to are far richer in organic remains than the red sandstones of contemporaneous date in Herefordshire and Scotland, the new name of the "Devonian system" was proposed as a substitute for that of Old Red Sandstone.

The link supplied by the whole assemblage of imbedded fossils, connecting as it does the paleontology of the Silurian and Carboniferous groups, is one of the highest interest, and equally striking whether we regard the *genera* of the corals or of the shells. The *species* are mostly distinct, except in the upper group.

The rocks of this group in South Devon consist, in great part, of green chloritic slates, alternating with hard quartzose slates and sandstones. Here and there calcareous slates are interstratified with blue crystalline limestone, and in some divisions conglomerates, passing into red sandstone. But the whole series is much altered and disturbed by the intrusion of the granite of Dartmoor and other igneous rocks.

In North Devon, on the contrary, the Devonian group has been less changed, and its relations to the overlying carboniferous rocks or "Culm Measures" are clearly seen. The following sequence is exhibited in the coast section on the Bristol Channel between Barnstaple and the North Foreland.\*

*Devonian Series in North Devon.*

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| Upper  | 1. | a. Calcareous brown slates; with fossils, many of them common to the Carboniferous group. (Barnstaple, Pilton, &c.)  |
|        |    | b. Brown and yellow sandstone, with shells and land-plants— <i>Stigmara</i> , <i>Kuorria</i> , and others. (Baggy Point, Marwood, &c.)                             |
| Middle | 2. | Hard gray and reddish sandstones and micaceous flags, without fossils, resting on soft greenish schists of considerable thickness. (Morte Bay, Bull Point, &c.)    |
|        | 3. | Calcareous slates, with eight or nine courses of limestone, full of corals and shells like those of the Plymouth limestone. (Combe Martin, Ilfracombe Harbor, &c.) |
| Lower  | 4. | Hard, greenish, red, and purple sandstones; with occasional fossils, <i>Spirifers</i> , &c. (Linton, North Foreland, &c.)  |
|        | 5. | Soft chloritous slates, with some sandstones; <i>Orthis</i> , <i>Spirifer</i> , and some Corals. (Valley of Rocks, Lynmouth, &c.)                                  |

The successive beds of this section have been compared with those of South Devon and Cornwall, both by the authors of the "Devonian" system and by other observers. And Prof. Sedgwick has again lately brought them into closer comparison.† Other geologists, at home and abroad, have successively identified them with the Devonian series in France, Belgium, the Rhenish Provinces, Central Germany, and Amer-

\* Sedgwick and Murchison, Trans. Geol. Soc., New Series, vol. v. p. 644. De la Becho, Geol. Report, Devon and Cornwall, pl. 3. Murchison's Siluria, p. 256.

† Quart. Journ. Geol. Soc. vol. viii. p. 1, et seq.