

PART III.

UPPER PALÆOZOIC STRATA.

CHAPTER XXI.

THE CARBONIFEROUS SYSTEM.

Divisions of the System.—In England the Carboniferous system, when fully expanded, admits of division into the following six groups, which, however, are not to be found together in every district:—

Coal measures	} Upper Group.
Millstone grit	
Yoredale rocks	} Lower Group.
Scar limestone	
Lower limestone shales	
Calciferous sandstone	

These six groups are naturally arranged into two greater divisions, the upper one specially coal-bearing, or Carboniferous proper, the lower calcareous, in places arenaceous; but in each of the many districts of Britain where these strata occur, some local peculiarity is observable which often disturbs this general classification. The millstone grit is connected through its marine fauna with the Yoredale rocks in the north of England, and with the coal measures through its plants, and thus has the aspect of a transition group, which may for convenience be sometimes joined to the lower, sometimes to the upper series, or occasionally be treated alone. In Yorkshire, the limestone series is intermingled with coal, sandstones, and shales; in the northern parts of Northumberland, these two series are intimately blended. The millstone grit is 800 feet thick in Yorkshire and Derbyshire, but thins away in the south-west of England.

There is nothing peculiar in this: similar phenomena occur among the higher or newer formations. In fact, it is certain that among all the groups of strata the minute distinctions are mostly local, and even the formations themselves, however extensive, are limited within exact and well-defined conditions. The Carboniferous series in Britain is, with few exceptions, conformable to the Old Red Sandstone below.