

in the abyss of the ocean; and the remains of terrestrial, lacustrine, and marine animals will accordingly be found associated with it, in the respective strata.\*

But although there are many coal-fields (or basins, as they are termed, because they occupy depressions) that have evidently been formed by different, and local agencies, the grand series of ancient coal-beds comprised in the carboniferous groups, setting aside unimportant variations, present a remarkable uniformity of character in their nature and arrangement, not only throughout Great Britain and Europe, but in America, and in every other part of the known world. My late excellent friend, Mr. Bakewell, used to explain the manner in which the beds of coal are interstratified with layers of clay and shale, by the following apt illustration. Let a series of mussel shells be placed one within the other, and a layer of clay be interposed between each; the shells will represent the beds of coal, and the partitions of clay, the earthy strata interposed between the carboniferous layers. If one side of the shell be raised to indicate the general rise of the strata in that direction, and the whole series be dislocated by partial cracks and fissures, the general arrangement of the beds, and their displacement, will be

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\* Mr. Murchison has treated this subject with great ability: see *Sil. Syst.* chap. xi., and the illustrative maps opposite, p. 152.