

east coast of Brazil, from Cape Roque to the Plata, though 400 leagues distant from the great circle of Zurich and Marseilles, might, perhaps, upon this hypothesis, be referred to the same epoch.

The most striking difficulty to the reception, at present, of any hypothetical connections between geographical lines and the irregular lines of disruption of strata, arises from the excessive number of these disturbances, and the variety of their directions. Brongniart has expressed, in strong terms, his impression on this subject, by saying that there is hardly a square myriameter of the earth's surface which has been left in its original position.

This difficulty, however, would only perplex the observer, not obscure the reasoning. There is another of more importance. The exact geological date of a dislocation of strata is very difficult to determine, and in most cases is merely known within wide limits. Who can *prove* the contemporaneity of the elevation of Snowdonia and the Grampians, when the strata dislocated are not the same, and the covering deposits are different? In the north of England the rothetodteliegende and magnesian limestone cover dislocated coal; in some parts of the south of England they are not traceable. The dislocations of the coal *may be* of the same age in both districts, but it is impossible to prove it.

These are difficulties in the examination of De Beaumont's views, not objections to their truth. There is, apparently, only one mode of discussion which is likely to be at all satisfactory: we may compare together the directions of dislocations, which are probably of the *same* geological period, and afterwards some of those which are known to belong to *different* periods.

The first class of dislocations, which, in this vague sense, may be called contemporaneous, belongs to the period anterior to the whole carboniferous and old red sandstone series of rocks. To this period the anticlinal axes of the Highlands and Lammermuirs, prolonged to Donegal and Cavan, the Cumbrian mountains, the Isle