

numerous outlying masses. To render intelligible the course and position of the lias in this quarter, it is necessary to state that this district is principally occupied by three great basins of the coal formation, encircled by the subjacent rocks of mountain limestone and old red sandstone; the edges of these basins consist of strata thrown up at a high angle and often nearly vertical, forming bold and precipitous ranges of hills, among the vallies of which the horizontal strata of lias with the subjacent beds of red marle and brecciated or magnesian lime (hereafter to be described), form what the Wernerians would call up-fillings, being deposited *unconformably over* the extremities of the highly-inclined strata of the coal measures, &c. which they cover very generally in the lower grounds; seldom exceeding a trifling elevation,\* and cut through in various directions by the higher ranges of mountain lime and old red sandstone above mentioned, which of course gives to the whole a very irregular and perplexed outline. These three principal coal basins, for there are other small ones which it would only embarrass so general a description to specify, are, 1st. That of South Gloucester and North Somerset, bounded on the south by the range of the Mendip hills, on the west by the range which passes by Clifton forming the defile of the Avon, and on the north-east by a continuation of the same chain, trending round in that direction; all these chains exhibiting inclined strata of mountain lime and old red sandstone. The lias and subjacent horizontal beds are seen filling up the interior of this basin in the neighbourhood of Bristol, between that city and Bath, at Pucklechurch, and throughout the Somersetshire collieries. On the north-west of the ridge forming the edge of the coal basin, they are to be seen at Pyrton and Aust Passages, and numerous other points along the æstuary of the Severn, by which this coal-field is separated from that of the forest of Dean. On the south they stretch beyond the foot of the Mendips, through the marshes of the rivers

\* This is to be understood as a general expression of the fact; in some parts, however, of the South Gloucester and Somerset basin, towards the Mendip hills, where the vallies are deeply excavated through the subjacent sandstone to the coal measures, the lias sometimes caps the brow of escarpment between 300 and 400 feet in height.

Above Crosscombe, on the south of the Mendips, between Shepton Mallet and Wells, the lias which here abuts abruptly against the elevated strata of mountain limestone, forms platforms about half way up the hills; and the groupe of Broadfield Down, which forms a portion of the western boundary of this basin, is skirted on the south-east with lias hills almost rivalling it in height. The details of this district, which it would be scarcely consistent with the limits of a general work like the present to trace at greater length, are represented with great fidelity in Mr. Greenough's Map.