

In the line of the Harbour at Whitby occurs a considerable dislocation of strata, such that they are depressed on the western side, as compared with the eastern, about 150 feet. There is no alum shale seen on the western side for a great distance, but the shore is sandy, and offers some convenience for bathing.

For about two miles west of Whitby this character of the shore continues, and the cliffs, which are low, are mostly composed of sandstone covered by drift. This part of the coast is much depressed by faults. Beyond their range, at Sandsend, the cliffs of lias rise again, and have tempted the establishment of alum-works. From this part of the shore fine Plesiosaurians have been obtained for the Earl of Mulgrave. From this point some part of the lias is seen in every cliff to the west as far as Redcar. Gritstone covers it from Sandsend to Kettleness, where again alum-works are established, and at the highest point stands 375 feet above the sea. At the base of the cliff the remarkable ironstone bands, which were noticed at Robin Hood's Bay, reappear and form projecting scars.

In the romantic little bay of Runswick, a part of the lias shale which lies over these ironstones, and is more compact than the rest, stands prominent, and is excavated by the sea into 'arched rocks.'

The cliffs between Runswick and Staithes have the general character of a lias base with a sandstone covering, rising at the utmost to 321 feet. This point is marked by tumuli, which perhaps might reward the labours of the antiquary. Near Staithes the cliffs descend; the sandstone cap is removed, and the ironstone series again becomes prominent. It is crossed by faults; one of them coincides with the mouth of the little stream which gives life and picturesque beauty to Staithes.

No better station than this can be selected for exploring the sections or gathering the fossils of the Lias. On the east the upper lias and ironstone series; on the west the upthrown marlstone and lower lias are easily examined; and by proceeding only a mile to the west, the great Cliff of Boulby is reached—