

oyster, which must have lived in the sea ; in that, a *Cyclas*, the inhabitant of a lake ; here the plates of a river tortoise ; there the bones of the marine *Plesiosaur*. Of all the many-coloured strata of which the deposit consists, there is not one which does not speak of that law of change of which the poet, as if in anticipation of the discoveries of modern science, sings so philosophically and well :—

‘ Of chance or change, oh ! let not man complain,
Else shall he never, never cease to wail ;
For from the imperial dome, to where the swain
Rears the lone cottage in the silent dale,
All feel the assault of Fortune’s fickle gale ;
Art, empire, earth itself, to change are doom’d :
Earthquakes have raised to heaven the humble vale,
And gulfs the mountain’s mighty mass entomb’d ;

And where the Atlantic rolls, wide continents have bloom’d.’

Regarded, too, as the record of, if I may so express myself, a party-coloured time, these party-coloured layers are of no little interest. There forms in the recesses of the Northumbrian coal-pits a party-coloured clay, consisting of grey and black layers, which, from a certain peculiarity to which I shall immediately advert, bears the name of *Sabbath-stone*. The springs which ooze into the pits are charged with a fine impalpable pipe-clay, which they deposit in the pools and waters of the deserted workings, and which is of a pale grey colour approaching to white. When the miners are at work, however, a light black dust, struck by their tools from the coal, and carried by currents of air into the recesses of the mine, is deposited along with it ; and, in consequence, each day’s work is marked by a thin black layer in the mass, while each night, during which there is a cessation of labour, is represented by a pale layer, which exhibits the colour natural to the clay. And when a cross section of the substance thus deposited comes to be made, every week of regular employment is found to be represented by a group of six black streaks closely lined off on a pale ground,