

converted into solid rock ; and certainly the appearance of some of the sections is such as to awaken curiosity. In the section of Linksfield, in the neighbourhood of Elgin, though the thickness of the deposit does not exceed forty feet, there occur numerous alternations of argillaceous and calcareous beds, differing from each other in colour and quality, and not unfrequently in their fossils also ; and each of which evidently represents a state of things which obtained during the period of their deposition, distinct from the preceding and succeeding states.<sup>1</sup> Strata of grey, green, blue, and almost black clays, alternate with beds of light green, light brown, grey, and almost black limestones ; and such is the effect, when a first section is opened in the deposit, as sometimes happens to facilitate the working of a limestone quarry below, that one is reminded, by the variety and peculiar tone of the colours, of the inlaid work of an old-fashioned cabinet made of the tinted woods which were in such common use about two centuries ago. Some of these bands seem, from their contents, to be of fresh water ; some of marine origin ; one bed nearly four feet in thickness is composed almost exclusively of the shelly coverings of a minute crustacean,—*Cypris globosa*,—not half the size of a small pin-head ; one is strewed over with the teeth of sharks ; one with the plates and scales of ganoidal fishes ; in one a small mussel is exceedingly abundant ; another contains the shells of *Planorbis* and *Paludina* ; in this layer we find a small

<sup>1</sup> Fielding, in his *Voyage to Lisbon* (1754), gives an account of an inaccessible bank of mud which stretched at low water between the shore at Ryde and the sea. ‘Between the shore and the sea,’ he says, ‘there is at low water an impassable gulf of deep mud, which can neither be traversed by walking nor swimming, so that for near one-half of the twenty-four hours Ryde is inaccessible by friend or foe.’ The same tract now is occupied by an expanse of firm white sand, which forms excellent bathing ground ; but immediately under, at the depth of from eighteen inches to two feet, the mud of Fielding’s days is found occurring as a dark-coloured impalpable silt.