

succession — now sandstone, now limestone, now stratified clay. But though intimately acquainted with these lower rocks for more than a hundred fathoms from their base upwards, and with the upper rocks on both sides the ichthyolitic bed for more than a hundred feet, there was an intervening hiatus, whose extent at this period I found it impossible to ascertain. And hence my uncertainty regarding the place of the ichthyolites seeing that whole formations might be represented by the occurring gap. On the Moray Frith side, where the sections are of huge extent, a doubtful repeat in the strata at one point of junction, and an abrupt fault at another, cuts off the upper series of beds to which the organisms belong, from the lower to which the great conglomerate belongs. On the Cromarty Frith side the sections are mere detached patches, obscured at every point by diluvium and soil; and, in conceiving of the whole as a continuous line, with the Lias a-top and the granite group at the bottom, I was ever reminded of those coast-lines of the ancient geographers, where a few uncertain dots, a few deeper markings, and here and there a blank space or two, showed the blended results of conjecture and discovery — whether they give a *Terra Incognita Australia* to the one hemisphere, or a North-Western passage to the other. The ichthyolites in a section so doubtful might be regarded as belonging to either the Old or the New Red Sandstone — to the Coal Measures, or to the Mountain Limestone. All was uncertainty.

One remark in the passing: it may teach the young geologist to be cautious in his inferences, and illustrate, besides, those gaps which occur in the geological scale. I had now discovered the ichthyolite beds in five different localities; in one of these — the first discovered — there is no overlying stratum; it seems as if the bed formed the top of the forma-