

tions. Even wanting that, however, it is something to know, that though the sea has stood at the existing sea-margin since the days of Agricola, and at least a few centuries more, it stood for a considerably longer period at the old coast line. The rock of which those remarkable promontories, the Sutors of Cromarty, are composed, is a granitic gneiss, much traversed by faults, and enclosing occasional masses of a soft chloritic schist, that yields to the waves, while the surrounding gneiss,—hard enough to strike fire with steel,—remains little affected by the attrition of centuries. These promontories have, in consequence, their numerous caves ranged in a double row,—the lower row that of the existing coast, the upper that of the old one; and I have examined both rows with some little degree of care. The deepest of the recent caves measures, from the opening to its inner extremity, where the rock closes, exactly a hundred feet; the deepest of the ancient ones, now so completely raised above the surf, that in the highest tides, and urged upwards by the severest storms, the waves never reach its mouth, measures exactly a hundred and fifty feet. And these depths, though much beyond the respective average depths of their several rows, bear, so far as I could ascertain the point, the proportions to each other that these averages bear. The caves of the existing coast line are as *two* in depth, and those of the old coast line as *three*. If the excavation of the recent caves be the work of *two* thousand years, the excavation of the ancient caves must have been the work of *three* thousand; or, as two thousand does not bring us much beyond the Roman period, let us assume as the period of the existing coast line and its caves, two thousand two hundred years, and as the proportional period of the old coast line, three thousand three hundred more. Both sums united bring us back five thousand five hundred years. How much more ancient either coast line may be, we of course cannot determine: