

ful process if rightly gone into, and a very fallible one if only partially executed. Much, then, at present, must be left to opinion, and to that sort of clear-judging tact which sometimes anticipates experience; but this ought not to stand in the way of our making every possible effort to obtain accurate information on such points, by which alone geology can be rendered, if not an experimental science, at least a science of that kind of active observation which forms the nearest approach to it, where actual experiment is impossible.

(322.) Let us take, for example, the question, "What is the actual direction in which changes of relative level are taking place between the existing continents and seas?" If we consult partial experience, that is, *all* the information that we possess respecting ancient sea-marks, soundings, &c., we shall only find ourselves bewildered in a mass of conflicting, because imperfect, evidence. It is obvious that the only way to decide the point is to ascertain, by very precise and careful observations at proper stations on coasts, selected at points where there exist natural marks not liable to change in the course of at least a century, the true elevation of such marks above the *mean* level of the sea, and to multiply these stations sufficiently over the whole globe to be capable of affording real available knowledge. Now, this is not a very easy operation (considering the accuracy required); for the *mean* level of the sea can be determined by no single observation, any more than the mean height of the barometer at a given station, being affected both by periodical and accidental fluctuations due to tides, winds, waves, and currents. Yet if an instrument adapted for the purpose were constructed, and rendered easily attainable, and rules for its use carefully drawn up, there is little doubt we should soon (by the industry of observers scattered over the world) be in possession of a most valuable mass of information, which could not fail to afford a point of departure for the next generation, and furnish ground for the only kind of argument which ever can be conclusive on such subjects.