

pleasure ; and that they were overwhelmed by the eruptions of Vesuvius, and their place blotted out from the earth and forgotten? These inferences no one can dispute—all agree in the conclusions to be drawn. When, moreover, the traveller sees the cracks in the walls of the houses of Pompeii, and observes that some of them have been thrown out of the perpendicular, and have been repaired and shored up with props, he infers that the fatal convulsion was not the first, and that these cities must have been shaken to their foundation by the effects of previous earthquakes. In like manner the geologist reasons respecting the physical changes that have taken place on the surface of our globe. The crust of the earth is full of crystals and crystallized rocks ; it is replete with the entombed remains of animals and vegetables, from mosses and ferns to entire trees—from the impressions of plants to whole beds of coal. It is stored with the relics of animals, from the minutest shell-fish to the most stupendous reptiles. It is chequered with fragments, from fine sand to enormous blocks of stone. It exhibits in the materials of its solid strata every degree of attrition, from the slightest abrasion of a sharp edge or angle, to the perfect rounding which produces globular and spheroidal forms of exquisite finish. It abounds in dislocations and fractures ; with injections and filling up of fissures with foreign rocky matter ; with elevations and depressions of strata in every position, from the horizontal to the