

the surface of France, only raise its mean level about 115 feet. The mass of the eastern and western Alps would in like manner only increase the height of Europe about  $21\frac{1}{2}$  feet above its present level. I have found by a laborious investigation,\* which, from its nature, can only give a maximum limit, that the center of gravity of the volume of the land raised above the present level of the sea in Europe and North America is respectively situated at an elevation of 671 and 748 feet, while it is at 1132 and 1152 feet in Asia and South America. These numbers show the low level of northern regions. In Asia the vast steppes of Siberia are compensated for by the great elevations of the land (between the Himalaya, the North Thibetian chain of Kuen-lun, and the Celestial Mountains), from  $28^{\circ} 30'$  to  $40^{\circ}$  north latitude. We may, to a certain extent, trace in these numbers the portions of the Earth in which the Plutonic forces were most intensely manifested in the interior by the upheaval of continental masses.

There are no reasons why these Plutonic forces may not, in future ages, add new mountain systems to those which Elie de Beaumont has shown to be of such different ages, and inclined in such different directions. Why should the crust of the Earth have lost its property of being elevated in ridges? The recently-elevated mountain systems of the Alps and the Cordilleras exhibit in Mont Blanc and Monte Rosa, in Sorata, Illimani, and Chimborazo, colossal elevations which do not favor the assumption of a decrease in the intensity of the subterranean forces. All geognostic phenomena indicate the periodic alternation of activity and repose;† but the quiet we now enjoy is only apparent. The tremblings which still agitate the surface under all latitudes, and in every species of rock, the elevation of Sweden, the appearance of new islands of eruption, are all conclusive as to the unquiet condition of our planet.

\* *De la hauteur Moyenne des Continents*, in my *Asie Centrale*, t. i., p. 82-90, 165-189. The results which I have obtained are to be regarded as the extreme value (*nombres-limites*). Laplace's estimate of the mean height of continents at 3280 feet is at least three times too high. The immortal author of the *Mécanique Celeste* (t. v., p. 14) was led to this conclusion by hypothetical views as to the mean depth of the sea. I have shown (*Asie Centr.*, t. i., p. 93) that the old Alexandrian mathematicians, on the testimony of Plutarch (*in Æmilio Paulo*, cap. 15), believed this depth to depend on the height of the mountains. The height of the center of gravity of the volume of the continental masses is probably subject to slight variations in the course of many centuries.

† *Zweiter Geologischer Brief von Elie de Beaumont an Alexander von Humboldt*, in Poggendorf's *Annalen*, bd. xxv., s. 1-58.