

must be formed, such as we see on the surface of melted matters grown cold : that the highest mountains, all composed of vitrifiable matters, existed and take their date from that moment, which is also that of the separation of the great masses of air, water, and earth ; that afterwards, during the long space of time which the diminution of the heat of the globe to the point of present temperature supposes, there were made in these mountains, which were the parts most exposed to the action of external causes, an infinity of fusions, sublimations, aggregations, and transformations, by the fire of the sun, and all the other causes which this great heat rendered more active than they at present are, and that consequently we must refer back to this date the formation of metals and minerals which we find in great masses, and in thick and continued veins. The violent fire of inflamed earth, after having raised up and reduced into vapours all that was volatile, after having driven off from its internal parts the matters which compose the atmosphere and the sea, and at the same time sublimated all the least fixed parts of the earth, raised them up and deposited them in every void space, in all the cavities which formed on the surface in proportion as it cooled ; this, then, is the origin and the gradation of the  
situation