

lands and swallowing of mountains by the rupture of caverns, and the succussions occasioned by earthquakes and the action of volcano's: But we have said enough to establish the general conclusions we have drawn from the facts already related.

## II.

*Of Volcano's.*

THE ancients have left us some notices concerning the volcano's which were known to them, and particularly those of *Ætna* and *Vesuvius*. Several learned and curious observers have in our days examined more minutely the form and effects of these volcano's. On comparing their descriptions, the first observation that presents itself, is the folly of transmitting to posterity the exact topography of these burning mountains. Their form may be said to change daily; their surface rises or sinks in various places; every eruption produces new gulfs or new eminences: To attempt to describe all these changes, is to follow and paint the successive ruins of a burning edifice. The *Vesuvius* of *Pliny*, and the *Ætna* of *Empedocles*, present very different aspects from those which have been so ably delineated by *Sir William Hamilton* and *Mr. Brydone*; and, in a few  
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ages, these recent descriptions will no longer resemble their objects. Next to the surface of the ocean, nothing on this globe is so fluctuating and inconstant as the surface of volcanic mountains: But even from this inconstancy, and from the variation of form and movements, some general conclusions may be drawn, by bringing particular observations under one point of view.

## III.

*Of the Changes which have happened in Volcano's.*

THE base of *Ætna* is about sixty leagues in circumference, and its perpendicular height about two thousand fathoms above the level of the Mediterranean sea. We may, therefore, regard this enormous mountain as an obtuse cone, the superficies of which are not less than three hundred square leagues. This conical surface is divided into four zones, situated concentrically above each other. The first is the largest, and, by a gradual ascent, extends above six leagues from the most distant point at the foot of the mountain. This zone of six leagues broad is almost totally peopled and cultivated. The city of *Catania* and several villages are situated in this first zone, the surface of which  
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