

terranean. This general correspondence of structure is readily explained by the theory respecting the geological formation of mountains, already discussed in these pages. The point at which the matter was suddenly erupted from "the bowels of the earth" presents a steep and abrupt face, while the rocks which have been raised over a wide area, starting from this point, sink with a slow and gradual decline, according to their distance from the centre of elevation; hence one abrupt and even precipitous side, and another with a prolonged slope. A similar effect is also produced when the mountains result from a simple break or "fold" in the terrestrial crust; if you raise a fold in a piece of cloth, one side will be comparatively steep, the other smooth.

[It should be remembered, however, that our vision plays fantastic tricks with our judgment in calculating the steepness of a declivity. Precipitous as the Alps appear to every traveller, and toilsome as is their ascent, they do not possess a single rocky face of 1600 feet in perpendicular height, or a vertical slope of 90° . None who have gazed upon the soaring sides of Mont Blanc, in the direction of the Allée Blanche, have failed to shudder at its apparent terrors; yet the declivity does not really amount to 45° ; and the mean inclination of the Peak of Teneriffe, which, from the sea, appears like a colossal pyramid, the sepulchre of the Titans of the old mythology, does not exceed $120^{\circ} 30'$. The nearest approach to perpendicularity of any great height yet known is the Silla of Caraccas, which rises grandly from the Caribbean Sea, at an angle of $53^{\circ} 28'$, to an altitude of nearly 7000 feet.

The variety observable in the summits of mountains is very curious, and scarcely less suggestive to the geologist than to the artist. The general form and outline of a rock depends in no small degree upon its composition and internal structure, and upon the manner in which it is affected by atmospheric influences. The geological character of a mountain may often be inferred from its configuration. Thus, dolomite usually assumes a serrated form, like the teeth of a saw, whence the *Sierras* of Spain; crystalline schists shoot upward in pointed circular spires, like the Alps; calcareous rocks are smoothly rounded, as every traveller among the Sussex downs will have noticed; slates and quartziferous schists break up into triangular wedge-shaped masses; serpentine and trachyte are strangely bent and contorted; phonolites take a pyramidal outline; basalt is reared in shapely columns, and trap in dark sombre walls; while volcanoes are indicated by truncated cones and craters.]

We distinguish, in one and the same mountain, the *foot* or *base*, which reposes on the undulations of the plain; next, the *flanks*; and, finally, the *summit*, *crest*, or *crown*; sometimes, when the elevation is roof-shaped, we call it a *ridge*.

The denomination "mountain" is not usually given to elevations of less than 1500 feet, but no rigid accuracy has been observed in its employment. To the Alpine chamois-hunter the mountains of Scotland seem insignificant heights; to the Scotch peasant the Wharfedale, the Ingleborough, and the Skiddaw, are little better than hills.

Nothing, as we have said, is more infinitely varied than the form of the mountains, and consequently an immense variety of denominations describes their different shapes: thus, "peaks," "needles," "domes," "paps," and, in French, *dents*, *quilles*,