

Moon are in descending order at the south edge, very near the Pole, *Dörfel* and *Leibnitz*, 24,297 feet; the annular mountain *Newton*, where a part of the deep hollow is never lighted, neither by the Sun nor the Earth's disk, 23,830 feet; *Casatus*, eastward of *Newton*, 22,820 feet; *Calippus*, in the Caucasian chain, 20,396 feet; the *Apennines*, between 17,903 and 19,182 feet. It must be remarked here, that in the entire absence of a general *niveau-line* (the plane of equal distance from the center of a cosmical body, as is presented on our planet by the level of the sea), the absolute heights are not to be compared strictly with each other, since the six numerical results here given properly express only the differences between the peaks and the immediately surrounding plains or hollows.* It is, however, very remarkable that Galileo likewise assigned to the loftiest lunar mountains the height of about four geographical miles (24,297 feet), "*in-circa miglia quatro*," and, in accordance with the extent of his hypsometric knowledge, considered them higher than any of the mountains on the Earth.

An extremely remarkable and mysterious phenomenon which the surface of our satellite presents, and which is only optically connected with a reflection of light, and not hypsometrically with a difference of elevation, consists in the narrow streaks of light which disappear when the illuminating rays fall obliquely; but in the full Moon, quite in opposition to the Moon-spots, become most visible as systems of rays. They are not mineral veins, cast no shadow, and run with equal intensity of light from the plains to elevations of more than 12,780 feet. The most extensive of these ray-systems commences from *Tycho*, where more than a hundred streaks of light may be distinguished, mostly several miles broad. Similar systems which surround the *Aristarchus*, *Kepler*, *Copernicus*, and the *Carpathians*, are almost all in connection with each other. It is difficult to conjecture, by the aid of induction and analogy, what special transformations of the surface give rise to these luminous, ribbon-like rays, proceeding from certain annular mountains.

The frequently mentioned type of circular configuration, almost every where preponderating upon the Moon's disk, in the *elevated plains* which frequently surround *central mountains*; in the large *annular mountains* and their craters (22 are counted close together in *Bayer*, and 33 in *Albategnius*)

* For the six heights which exceed 19,182 feet, see Beer and Mädler, p. 99, 125, 234, 242, 330, and 331.