

WILEY



Review

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As regards the discrepancy in the height, this is probably due to a wrong coefficient of refraction having been assumed.

The coefficients for the different lines where Captain Jack took reciprocal observations varied from 0·04 to 0·09, or, omitting lines with exceptional features, from 0·057 to 0·076, with a mean of 0·064. The longer lines to high points giving as a rule the lower values, the value 0·060 was selected for computing the height of Ruwenzori as stated above. This is probably on the low side, but if 0·065 be taken the difference is only 20 feet.

The older observations by Captain Behrens, R.E., were taken from an average distance of 500,000 feet, or about twice the distance of Captain Jack's. Captain Behrens took many observations for refraction, and arrived at the figure of 0·080 for rays taken at about the same time of day as his rays to Ruwenzori. Long rays to high points would be, however, less affected by refraction than ordinary rays, hence the figure 0·080 appears high.

In combining these two values it must be remembered that an error in the coefficient of refraction produces an error in the result proportional to the square of the distance, consequently the different observations should be weighted inversely as d^2 , where d is the length of the ray.

As it is impossible to be sure of one's coefficient to within 0·005 or even 0·01, a set of observations taken from a great distance such as 100 miles, may easily be out 100 feet in the result, and these cannot therefore be given a greater weight than good barometric heights, taken as carefully as those of the Duke of the Abruzzi.

On the above considerations, I should weight the different observations as follows:—

Captain Jack	16,801	wt.	16
Captain Behrens	16,619	,,	1
Duke of the Abruzzi	16,814	,,	1

giving a final result, in round figures—

Height of Ruwenzori, 16,790 feet, with a probable error of ± 20 feet.

REVIEWS.

EUROPE.

'LA haute Loire et le haut Vivarais.' Par Marcellin Boule. (Paris: Masson, 1911. *Maps and Illustrations*. 4.50 fr.) This addition to the guide-books of the Boule Collection is arranged on the same principle as the preceding volumes, the first half being divided into chapters on the geography, geology, botany, etc., of the region, and the latter being the guide-book proper. The district has much to recommend it to the ordinary tourist, and particularly, perhaps, to those with an archæological bent. The characteristics of the inhabitants, as described, are attractive. They are proverbially "born dancing." There are numerous maps, plans, and small illustrations.

ASIA.

PALESTINE.

'Palestine and its Transformation.' By Ellsworth Huntington. Pp. xvii, and 443. *Illustrations*. London: Constable & Co. 1911.

Mr. Huntington is already well known as an advocate of the theory of pulsatory changes of climate in Asia and in other lands, and also as an exponen