

in relation to the equator; its proximity to the sea; and its elevation.

1. The largest quantity of rain falls at or near the equator, and progressively decreases to the poles, a fact which seems to be in some degree substantiated by the fulness and magnitude of the equatorial rivers. Humboldt has given the following table as the result of the calculation he made of the proportional quantity of rain in different latitudes.

Latitude.	Mean annual depth of Rain.
0° . . . . .	96 inches.
19 . . . . .	80 “
45 . . . . .	29 “
69 . . . . .	17 “

But although we speak of a relation between the latitude of a place and the quantity of rain that falls there, it must not be supposed that there is any constant average throughout a parallel. Local causes interfere to prevent such a result. A less quantity of rain falls upon the sea than on the land, there being on the former no elevation around which the clouds are attracted; and a greater quantity will fall in mountainous than in lowland districts.

2. Rain falls more abundantly on seacoasts than in inland places, although they may be in every other circumstance similarly situated, and have the same general physical features. It has been supposed, and not without evidence, that atmospheric humidity decreases in a geometrical proportion with the distance from the sea. This is an effect which might be expected, as the supply of vapour is most abundant in the vicinity of the sea. But it is still to be determined why it should be more condensed on the coast than inland, and must be explained according to the theory that is adopted.

3. Mountainous countries are always more humid than level ones. Mountains, when acted upon by the sun, heat the air which is in contact with them, even in the cold regions of the upper atmospheric strata. These heated masses of air absorb the moisture from the colder columns around; but, meeting with humid masses of lower temperature, or cooled by the constant abstraction of their heat, the humidity becomes too great for the temperature, and rain is produced. At Keswick and Kendal, in England, both situated among the mountains of Cumberland, the annual fall of rain is about