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? WHY THE WEATHER ?

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PHYSICAL BASES OF CLIMATE

Tell a climatologist the latitude and altitude of a place, its location with respect to land masses and bodies of water of stated sizes, the nearness and direction of major mountain ranges or important ocean currents, and the local topography, and he can tell you the essentials of the climate of that place. Take latitude, for example. The latitude determines absolutely the maximum possible amount of sunlight a place can receive. Of course it will not get so much as the most possible, but one can be sure that a place with a low potential receipt will, if other things are equal, be colder than one with a high one. Furthermore, given the latitude one can tell at once something of the relative length of night and day at different seasons, and can understand how much the amount of sunshine can vary in the course of the year. A place in high latitudes will get plenty of sunshine in summer, and practically none in winter. Its temperature will therefore be much higher in summer than in winter, though it may not get very hot because, perhaps, of the amount of ice and snow that may have to be melted. A place in low latitudes, on the other hand, always can have much sunshine, and so its temperature will not change greatly from one season to the next.

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(Tomorrow: Fountain Heads)

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