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? WHY THE WEATHER ?

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CHANGES OF CLIMATE

Do changes of climate occur? The answer is "yes" or "no" as the words "changes" and "climate" are defined. Does the question refer to the more or less permanent changes implied in the statement "the climate is not the same now as when I was a boy", or does it refer to the fluctuations, now up and then down, sometimes stretching over a period of years, even decades, perhaps centuries? Also, how large are the changes referred to? And what is climate? If it is the aggregate of the weather over a long period of years, or the weather that experience has shown us is likely to occur at a certain place, then we cannot measure changes in "climate" in units of less than 50 or 100 years. We change the local climate to some extent, however little, every time we cut down a tree, burn the grass, grade some land, or plant a wind break. Nature changes the climate to some extent every time she builds a delta, drains a lake, or modifies the coast line. Such changes are temporary, progressive, and mostly not reversible. Gradual changes on a grand scale are always in progress in the form of the land, and with such changes go, perhaps imperceptibly slow, though ultimately profound changes in climate. Changes in the dust content of the high atmosphere, e.g. in the amount of volcanic dust thrown as a veil over the earth from time to time, changes in the cosmical relations of the earth, progressive or cyclical, all bring their widespread effects on the climate. Most of Canada and much of the northern United States were covered with glaciers not once, but several times during the geologically recent past, yet the amelioration of climate that has occurred since the last ice sheet, when spread over twenty or more thousand years could not have been perceptible generally in a century - only perhaps a few tenths of a degree in temperature or tenths of an inch in rainfall. -----

(Tomorrow: Sunshine and Shower - Rain Again Tomorrow)

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