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? WHY THE WEATHER ?

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THE MYSTERY OF ICE CRYSTALS

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Crystallization is a process that science cannot account for, though a great deal is known about the ways in which it takes place in different substances. It is very common throughout the mineral kingdom, but in no other kind of matter does it result in the production of such a diversity of forms as we find in ice. Snow crystals are the most varied among the many kinds of ice crystals.

A learned Frenchman of long ago, Fabri de Peiresc, had his own notion about the origin of snow crystals. He believed their complex designs could be explained only by supposing them to be produced from seeds, after the fashion of plants -- and the idea is not inherently absurd. The development of a plant from a seed is, in fact, a mystery parallel to that of the growth of an elaborate crystal out of a substance seemingly so devoid of structure as liquid and gaseous water. Some current scientific writers so far revert to this old idea as to speak tentatively of "germ crystals"; implying a certain similarity between the process of crystallization and the development of living matter.

There is, however, one obvious difference between the growth of a plant and the growth of a crystal. The plant seed always produces its own species, regardless of nourishment and environment. The crystal, on the other hand, varies conspicuously with the physical conditions under which it grows. Ice-crystal patterns are certainly dependent on temperature and the supply of moisture, and probably on other factors that will one day be observed and measured.

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