METEOROLOGY

Remote Volcanic Eruptions May Affect Weather

WEATHER changes that visit blessing or bane on the tulip bed in your front yard and the sprouting radishes in your back garden sometimes receive substantial contributions from the remotest-seeming causes. A major volcanic eruption in Java or Alaska may fill the upper air with dust so fine that it will float round and round the world for two or three years before it settles out, and while it is aloft it helps to produce persistently chilly, often rainy weather—and your garden feels the consequences.

This and other effects of great volcanic explosions, such as that of Katmai in 1912 which kept the Iowa corn crop from ripening one or two seasons later, were discussed before the spring meeting of the American Geophysical Union in Washington by Prof. W. J. Humphreys of the U. S. Weather Bureau.

Spite Smoke of Vulcan

Volcanic dust in the upper atmosphere, Prof. Humphreys said, heralds its presence by strange effects on the sunlight as well as on the weather that follows disturbances in the radiations that reach and proceed from the earth. It is as though Vulcan, despised by the other Olympians for being "in trade," were setting up a spite-smoke from his forge, not only interfering with Jupiter's prerogative of ruling the clouds and the lightning, but making driving difficult for young Apollo in his golden sun-chariot.

At such times the sun becomes surrounded with peculiar rings or haloes, resulting from the scattering of its rays by the tiny dust particles. A large proportion of these seem to be actual microscopic bubbles with shells of stone, puffed out like the much-advertised "grains shot from guns," and in exactly the same way, by the sudden expansion of internal steam.

Measured

The angular diameters of these haloes can be exploited mathematically to obtain measurements of these invisibly fine bits of lava, air-borne miles above our heads. These calculations show them to have an approximate diameter of 1.85 microns, Prof. Humphreys said. A micron is a thousandth of a millimeter, and there are roughly 25 millimeters in an inch.

We might even get the paradox of a frozen earth produced by too much activity by fire-mountains. To reduce the intensity of direct solar radiation by 20 per cent., probably not more than one fifteen-hundredth of a cubic mile of volcanic dust, hurled into the upper air every couple of years and kept going a long enough time, would quite suffice. It would not matter even where the volcanoes were situated, so long as they blew their dust high enough to set it afloat around the world. Thus the northern lands might conceivably become ice-blanketed through an active conspiracy of a ring of tropical volcanoes.

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ARCHAEOLOGY

Soldier's Grave At Ur Yields Statue of Woman

A STATUE of a rather homely woman 5,000 years old is a discovery of importance from Ur of the Chaldees.

Reporting the discovery to the University of Pennsylvania Museum, Dr. C. Leonard Woolley, field director of the joint expedition to Ur, stated that the stone statue was unearthed in a soldier's grave, and that it lay touching the blade of the bronze axe at the soldier's shoulder. Finding a stone statue in a grave at Ur is unprecedented.

The figure of the woman is ten inches high and is of alabaster, Dr. Woolley stated. Describing it, he said:

"Squat and thick-set, with broad shoulders and head disproportionately large, the woman stands holding her hands before her breast. She wears the traditional garment of sheepskin and her hair, gathered in a heavy roll, is confined by a fillet of lapis lazuli inlay. The eyes are of shell and lapis lazuli and the eyebrows are inlaid with bituminous paste.

"The figure perhaps lacks a full measure of beauty and refinement, but illustrates the extent to which the stone sculpture of the period lagged behind the masterpieces of the goldsmith and the workers in inlay. The fact that it is dated makes it important, however, for it will serve as a basis for the dating of similar pieces and so will go far to round out our knowledge of the art of the golden age of Sumer."

The age of the statue, the oldest piece of stone sculpture in the round so far unearthed at Ur, is said with reasonable certainty to be about 3200 B.C.

Digging at Ur, recently completed, marks the twelfth season of work by the joint expedition of the British Museum and the University of Pennsylvania Museum. The principal goal of this season was to excavate a cemetery of 4000 B.C. or earlier. This cemetery lies 54 feet under the surface, beneath thousands of tons of accumulated debris of later buildings and cemeteries of Ur.

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