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? WHY THE WEATHER ?

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SUN AS FOG PRODUCER

We usually associate fogs with chilliness and dampness. Thus it seems paradoxical to call the sun an immediate fog producer under certain conditions. After a warm and muggy night in which it has rained, the sky may clear enough toward morning to allow the air to cool to the fog point. At sunrise the sun shines through the thin fog, warms the wet surfaces and begins to dry them. As the water is evaporated it is discharged into "saturated" air and therefore promptly condenses into liquid droplets. The fog by this process becomes denser immediately after sunrise. Heating has added to a fog produced by cooling!

But the sun is at the same time warming the air and thinning the original fog. And the wet surfaces are getting drier. The general fog becomes thin enough to allow the discharge from heated roofs sloping toward the sun to appear like a steaming surface. Now the fog is on the decrease, for, with the air warmer, more water can exist in the vaporstate. Soon the fog is gone and the "steaming" has stopped: the sun has finally dissipated a fog it first helped thicken.

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(Tomorrow: Equability of Leeward Shores)

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