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Letters

Odium theologicum

In D. E. Thomsen's "Planetology in the laboratory with ice" (SN: 9/1/84, p. 133), he reports that the nebular hypothesis was first articulated by Pierre Simon Laplace in the 18th century. Although Thomsen's dating is correct, his attribution of this theory to Laplace is not. The person who first developed the notion that the planets formed out of a tenuous nebula around the sun was Emanuel Swedenborg. Kant, who read Swedenborg's works, later took up this idea, and so, along with Pierre Laplace, contributed the theory to a wider scientific audience.

The reason Swedenborg has never been widely known as the author of the nebular hypothesis is that his achievements as a scientist tend to be overshadowed by his notoriety as a theologian. Although he was in some sense a "mystic," his approach to religion was basically that of a scientist. In his search for sense amidst

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Cover: The white crust covering this parched expanse in Colorado is a surface buildup of salts. The bane of arid agriculture everywhere, soil salinity is as much a problem today as it was 6,000 years ago. (Photograph: Tim McCabe/Soil Conservation Service)



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the fog of orthodox dogma, Swedenborg managed to step on a lot of toes. And so there descended over him a veil of theological controversy under which his intellectual achievements lie largely hidden to this day.

Richard L. Goerwitz III
New Haven, Conn.

Pro-life agriculture

What I would like to see daylight trigger is the demise of large-scale monocultures ("Daylight triggers demise of weeds," SN: 9/25/84, p. 197). Somehow, food production research that comes out of our land-grant colleges seems to focus on the suffix *-cide* (to kill) rather than the prefix *bio-* (life).

All of the "troublesome weeds" mentioned in the article are in fact quite delicious and more nutritious than the cultivated varieties within their botanical families. The soil needs many

types of roots and life working it at different levels, taking up and replacing complementary balances of nutrients. Bare earth is unnatural and unstable, and requires considerable energy to keep it that way. If our research energies were directed toward encouraging diversity and life on farms, and developing food systems that match ecosystems, we would find ourselves in the flow rather than fighting the current of biology. As most organisms have been selected "to know," killing all the potential competitors in the food chain is enormously expensive. It's adaptive and much cheaper to be symbiotic.

Frank Morton
Seabeck, Wash.

Correction: The CYBER computer, cited in "Super Problems for Supercomputers" (SN: 9/29/84, p. 200), is at Colorado State University in Fort Collins, not the University of Colorado in Boulder.