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Letters

Nile delta concerns 2,400 years old

The increased estimates for the rate of sinking of the Nile delta are alarming ("Pottery shows Nile delta dropping fast," SN: 8/7/93, p.87), and they leave me curious about the rationale for the Aswan dams.

More than 2,400 years ago, Herodotus, in book 2 of his *Persian Wars*, noted the rapid rate of silt deposition by floods and the associated rise of the Nile delta, which he estimated to be at least 10 feet in 900 years, or more than 3 centimeters per decade — remarkably close to modern estimates. Herodotus was not aware that the crust beneath the delta was sinking as rapidly as the delta was rising, but he was concerned about the famine that would result from "stoppage of the inundations" of the Nile, and I am sure he would have disapproved the building of the Aswan dams.

Robert H. Thomas
Washington, D.C.

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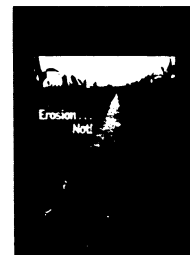
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Cover: The cost of watering crops from irrigation ditches has been the erosion of valuable topsoil. But no eroded silt particles cloud the water traveling down this cornfield furrow. The reason? Growers experimentally treated the furrow soil with a promising, inexpensive polymer that they mixed into the irrigation water. (Photo: ARS/Doug Wilson)



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Science Service, which publishes SCIENCE NEWS, is a nonprofit corporation founded in 1921. It gratefully accepts tax-deductible contributions and bequests to assist its efforts to increase the public understanding of science, with special emphasis on young people. More recently, it has included in its mission increasing scientific literacy among members of underrepresented groups. Through its Youth Programs it administers the International Science and Engineering Fair, the Science Talent Search for the Westinghouse Science Scholarships, and publishes and distributes the *Directory of Student Science Training Programs for Precollege Students*.

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Is test tube evolution Darwinian?

"Evolution in a Test Tube" (SN: 8/7/93, p.90) suggests that an exciting new biotechnological tool — directed molecular evolution — is analogous to Charles Darwin's concept of natural selection. I disagree.

The scientists who use this biotechnology have a purpose that motivates their selection of molecular structures. In contrast, Darwinian evolution depends on random events and chance. If molecular selection is an accurate model of natural selection, it suggests that there has been a design behind evolution for millions of years and, by logical extension, a Designer.

Unless I have misread *The Origin of Species*, Charles Darwin would not have supported such a paradigm.

Lawrence E. Armstrong
Storrs, Conn.

Extracting meaning from what's there

The story "Microwaves accelerate chemical extractions" (SN: 8/21/93, p.118) raises the

significant dichotomy between what's there and what's important. Merely knowing the amount of a substance that's present in a matrix often tells little about the significance of that amount. For example, there are tons and tons of gold in the ocean, but that gold has no commercial value. By the same token, the mere presence of a toxicant in a soil sample tells little about its bioavailability or the hazard it may pose.

What we are really looking for is an analytical method that answers not the question of what's there, but of what's significant to the task at hand.

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