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## Letters

### New view of old figurines

In regard to "Return of the Stone Age 'Antiques'" (SN: 2/19/94, p.126), I would like to suggest that the so-called Venus figurines were simply erotica.

P.M. deLaubenfels  
Corvallis, Ore.

### Airing views on mercury

In "Mercurial airs: Tallying who's to blame" (SN: 2/19/94, p.119), J. Raloff states that "because incinerators emit an extremely soluble form of the metal, most of the mercury they discharge can wash out of the air — and into the food chain — more effectively than can the mercury released by power plants."

What is this extremely soluble form of mercury metal?

David S. Crockett  
Associate Professor of Chemistry  
Lafayette College  
Easton, Pa.

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Cover: How long could the dinosaur *Carnotaurus* chase a tasty prey before having to take a breather? While paleontologists have long argued about the physiology of dinosaurs, new work may soon answer whether these reptiles were warm-blooded, cold-blooded, or something completely different.  
(Sculpture: Stephen Czerkas, Monticello, Utah)



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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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*Mercury emissions from combustion are gaseous and can take any of three major chemical forms: elemental, ionic (2+ and 1+), and organometallic (methyl). Though quite soluble and the most toxic, methylmercury appears to be relatively rare as a directly emitted combustion pollutant. The highly insoluble elemental mercury is the most prevalent form emitted by burning fossil fuels.*

*This mercury can travel long distances before it oxidizes to the highly soluble ionic forms — through reactions with ozone or other pollutants — and washes out of the air. Plants can absorb mercury directly from the air and eventually deposit it in soil as leaf litter. Once in soil or water, mercury becomes subject to bacterial methylation and uptake by the food chain. Recent research has shown that a large share of the mercury that incinerators emit leaves smokestacks in the oxidized (ionic) forms — primarily mercuric chloride, notes environmental chemist Gary E. Glass of the Environmental Protection Agency in Duluth, Minn. This is instantly available to wash out in rain or fog and undergo methylation.*

— J.A. Raloff

**The EPA credits** dentistry with using 30 tons of mercury annually for filling material ("More illuminating statistics on mercury," SN: 2/26/94, p.142). This is in contrast to estimates in the JOURNAL OF THE AMERICAN DENTAL ASSOCIATION that 70 to 100 tons are used each year in North America. It would seem that dentistry is contributing to our environmental mercury problems far more than the EPA considers.

The Swedish government agrees with this assessment. It announced that it was phasing out amalgam fillings, beginning in 1995. This decision was based entirely on amalgam's environmental impact, which would presumably be greater in years to come than it is today.

H. L. (Sam) Queen  
Colorado Springs, Colo.

**Rather than condemning** mercury emitters, EPA should rectify a claim that only 40 percent of the mercury in air can be traced to natural sources.

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