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Cover: The sun shines faintly through a veil of smoke from wildfires that raged along the western border of Yosemite National Park this summer. These blazes — the most severe in the park's 100-year history — provide a test for Yosemite's fire policy and raise questions about long-term management of the park's forests. (Photo: Yosemite Collections, National Park Service)

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Letters

Neither plant nor animal

References to protozoa as animals have long complicated scientific attempts to clarify biological diversity ("Herbicide curbs human parasite's spread," SN: 9/1/90, p.135). Animals are multicelled organisms derived from a blastulating embryo. Protozoa, such as *Leishmania mexicana*, are single-celled organisms that may have animal-like movements but are classified in either the Protista or Protocista kingdom.

Alice F. Brown
Graduate Student, Biology Dept.
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Tossing tots

Correlation does not prove causation. If toddlers who sleep in their parents' bed more than once a week also show symptoms of sleeping difficulty ("Sweeter slumber for tots

who sleep solo," SN: 8/11/90, p.87; Letters, SN: 10/26/90, p.211), how do we know what causes which? It may simply be that toddlers who have sleep difficulties come demanding — and gaining — entry to their parents' beds more than once a week.

I could well believe that these children may actually be troubled because that access isn't more frequent.

Greg Skala
Sooke, British Columbia

The mathematical aesthetic

While the works presented in "Equations in Stone" (SN: 9/8/90, p.152) have the grace and beauty of the finest of art, I tire of the attempt to represent mathematical aesthetics as geometry. It should be a wonder to few people that equations can generate works of the kind that Mr. Ferguson is privileged to create. And, though the literature is filled with similar valiant attempts at making mathematics acces-

sible to the nonmathematician, it is typically done with the sense that geometry is the only bridge. Yet mathematical aesthetics seems more closely aligned with dance than with any time-invariant media.

And one need not be a mathematical Barshnikov; there is a grace and power in working with mathematics that can be experienced even in arithmetic.

That is the message we need to convey to the nonmathematician — not, as Bertrand Russell pronounces, that the aesthetics of mathematics is "cold and austere, like a sculpture, without appeal to any part of our weaker nature."

This is the very impression that drives people away from mathematics, as well as from other sciences. It is the passion and wonder that we need to convey if "thinking" is to stop being a derogatory term.

Clem Padin
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