

The Weekly Newsmagazine of Science

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**COVET:** The Manicouagan impact crater in Canada looks like a bloodshot eye in this image taken by the Landsat satellite. Carved out of Earth's crust 214 million years ago, this crater is one of five that may have formed simultaneously when fragments of an asteroid or comet struck Earth. **Page 312** (Image courtesy R. A. Grieve)

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# Letters

### Menagerie on the move

I am puzzled by the conclusion that *Homo erectus* must have reached the island of Flores from Asia by seacraft 800,000 years ago, while the "large, elephantlike creatures, crocodiles, and giant rats" found alongside the *H. erectus* artifacts got there some other way ("Human ancestor may have taken to sea," SN: 3/14/98, p. 164). It seems to me that either they all could have come by seacraft (imagine elephants and crocodiles on a raft!), or, much more likely, they all could have walked.

Why is a craft a necessary part of the scenario?

Collier Smith Lafayette, Colo.

Archaeologist Michael J. Morwood says the nonhuman animals could have swum to the island.—B. Bower

## Shifting the burden of proof

In evaluating a possible connection between the recent stranding of beaked whales and NATO sonar tests ("Whales stranded during military test," SN: 3/21/98, p. 184), NATO spokesman Captain David Barron notes that the observation "does not establish any scientific cause and effect."

True, and research is called for. But this is the same argument the tobacco industry used successfully for decades to block regulatory action based on merely correlational studies of lung cancer and smoking.

When one considers how little is known about the relevant variables (beaked whale physiology, ecology, demography and behavior; military testing procedures; and so on), it

#### **CORRECTION**

"New light on ancient smokers" (SN: 4/11/98, p. 238) states that the pipe found at a Native American site in Vermont dates to between 1715 B.C. and A.D. 105. The correct dates are 715 B.C. to A.D. 105.

is almost inconceivable that definite cause and effect *could* be established to a skeptic's satisfaction.

When will we finally place the burden of proof on the side of those desiring to change the natural status quo?

Jim Moore La Jolla, Calif.

### Pheromones: A competitive edge?

"Nailing Down Pheromones in Humans" (SN: 3/14/98, p. 164) discusses an interesting study regarding the existence of human pheromones and the ability of women to synchronize the menstrual cycles of their neighbors. The author suggests that genes for producing pheromones arose in our species as a means of promoting genetic diversity.

A more satisfying explanation, I believe, is that alpha females propagate such genes because they benefit from synchronizing the menstrual cycles of lower-ranked females. An alpha

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