

## Horny Dilemma

Researchers are locking horns over whether the headgear shown at right belongs to a mysterious and possibly extinct mountain goat or to a common ox that has been refashioned by forgers. Each side seems to be digging in for some serious head-butting over the authenticity of their specimens.

In 1994, German scientists declared that the horns belonged to a previously unknown goatlike mammal, *Pseudonovibos spiralis*, that lives in the isolated Annamite mountains of southeast Asia. Although no scientist has ever seen the beast, it is thought to hail from the same region that has produced several other newly described mammals over the last decade, including the antelope-like saola and a giant barking deer. Conservationists



Horns of a mysterious goat or a fake?

even added *spiralis* to their list of endangered animals.

But in two papers to be published this month in *Les Comptes Rendus de l'Académie des Sciences*, Arnoult Seveau of the Zoological Society of Paris and two colleagues argue that four 70-year-old horn specimens that they have studied are artful forgeries, created by heating, twisting, and carving the bone sheaths. Molecular studies, they add, suggest that the skull caps come from a common species of

ox. Seveau spent 7 months scouring Cambodian forests and meat markets but found only "myths and legends—not even the smallest thing to suggest that it is a real animal." The horns, he suggests, were manufactured to cash in on local tales of a mythical creature whose powdered horns could cure snakebites.

But while Seveau may have found some fakes, "this is a real animal," says Robert Timm, mammal curator at the University of Kansas Natural History Museum in Lawrence. In the current *Journal of Zoology*, Timm says his museum's horns (above) show no "evidence of tampering." Seveau found no new evidence of *spiralis*, says Timm, because "it is most likely extinct."

## You Read It Here First

Librarian and word historian Fred R. Shapiro at Yale Law School, who last year used the electronic JSTOR journal archive ([www.jstor.org](http://www.jstor.org)) to trace the origin of the word "software" (*Science*, 19 May 2000, p. 1169), is at it again. This time, Shapiro has been mining JSTOR for early mentions of today's household scientific words.

In the latest *IEEE Annals of the History of Computing*, Shapiro reports what may be the earliest print appearance of "personal computer": It's in an ad for Hewlett-Packard's first desktop computer, published in the 4 October 1968 issue of *Science*. The ad, which also ran in other journals, beats the earliest citation given in the Oxford English Dictionary (OED)—an article in *Byte* magazine—by nearly 8 years.

JSTOR, raves Shapiro, is "a gold mine for studying the terminology of the humanities, social sciences, and natural sciences." He says his research has turned up three dozen words whose mention in *Science* predates citation in the OED. They include:

Radioactivity	1899
Mononucleosis	1907
Chemotherapy	1909
IQ	1917
Chain reaction	1918
Heart attack	1918
Atomic age	1921
Endangered species	1923
Econometric	1931
Positron	1933
Molecular biology	1941
Population explosion	1952
Amniocentesis	1957
Megabyte	1965
Plate tectonics	1969
Global warming	1971

## Japan Prize by Land and by Sea

Resources on land and at sea are the subject of the 2001 Japan Prize, one of the world's richest awards, announced in Tokyo on 14 December 2000. John Goodenough, a materials scientist at the University of Texas, Austin, is being honored for Science and Technology of Environment Conscious Materials; the Marine Biology prize goes to Timothy Parsons, a biological oceanographer and professor emeritus of the University of British Columbia, Vancouver. Each winner will

receive 50 million yen (about \$455,000) at a Tokyo ceremony in April.

Goodenough was cited for his development of lithium cobalt oxide, which is used for the electrodes of rechargeable lithium ion batteries. Atomic energy researcher Hiroshi Yasuoka, a member of the selection panel, says lithium ion is lighter and can power cell phones and notebook computers for longer on a single charge than batteries based on other materials. "More importantly, the material is environmentally benign," Yasuoka says, which means a decrease in the pile-up of toxic cadmium and lead in landfills from discarded batteries. He says that once the cost comes down, lithium ion could also prove to be an ideal battery for electric cars.

Parsons won for pioneering new approaches to modeling the interrelationships between different types of marine life and the physical and chemical aspects of the marine environment. Syoiti Tanaka, chair of the selection panel, says that under the old population dynamics approach to fisheries management, physical and chemical parameters "were just considered noise." Parsons's work underpins "a new holistic approach to the wise, sustainable use of ocean resources," he says.

Unlike the Nobel Prizes, award categories for the Japan Prize change every year, following a rotating schedule of six broad fields. Coming up next: Computing and Computational Science, and Engineering and Developmental Biology.

## Tiny Toast

Even a drop of the finest Merlot wouldn't fit in this 2750 nanometer-tall wineglass, made by nanotechnologist Shinji Matsui's research group at Japan's Himeji Institute of Technology. Matsui's team made the carbon cup—which is 200,000 times smaller than normal—to show off a new way of assembling three-dimensional nanodevices.

