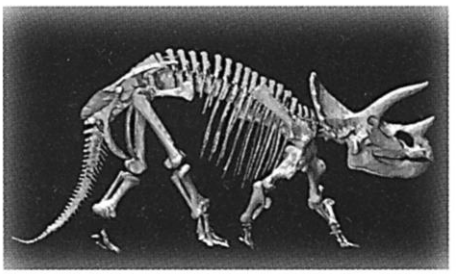
Triceratops Is No Slouch

The first horned dinosaur ever to go on display has received a high-tech upgrade. Scientists at the Smithsonian's National Museum of Natural History yesterday unveiled their new $1 million mounting of *Triceratops horridus*.

When the *Triceratops* first went on display in 1905, dinosaurs were thought to be reptilian and cold-blooded, so researchers made its front limbs splay out like a lizard's. But by the 1980s, researchers suspected the dino was warm-blooded and stood erect.

In 1998, the skeleton was taken down, and paleontologist Ralph Chapman and his colleagues set to work on a computer model in hopes of establishing just how *T. horridus* really stood and moved. Because the original skeleton comprised bones from a dozen individuals, they made a set of plaster casts to scale and also replaced the hind feet, which came from a duck-billed dinosaur, with anatomically correct models. To see how the bones moved, the workers made a dog-sized scale model of the 7-meter-long creature, which revealed that the shoulder joints would have functioned properly only if the front limbs were neither erect nor splayed, but in between. The new posture is "a robust solution to a long-standing problem," says paleontologist Peter Dodson of the University of Pennsylvania in Philadelphia.



***T. horridus*—the latest model.**

Long-Lived Oscars

Katharine Hepburn celebrated her 94th birthday this month, and her four Oscars may have something to do with it: According to a study published in the 15 May issue of the *Annals of Internal Medicine*, Academy Award winners live longer than other successful actors.

There is a growing body of research showing that high-status people live longer than the rest of us. The latest study indicates that even the cream separates into discernible layers.

Donald Redelmeier and Sheldon Singh of Sunnybrook and Women's College Health Sciences Centre in Toronto sorted through statistics on all 762 actors and actresses who have been nominated for Academy Awards in leading or supporting roles—including 235 winners—since the first ceremony in 1929. They also looked at a control group of 887 actors, matched as closely as possible for age and sex, who had appeared in the same movies. Of the total, 772 had died by March 2000.

Hepburn

They found that life expectancy was 3.9 years more for the winners than the controls (79.7 versus 75.8). Life expectancy among the nonwinning nominees looked more like that of the controls. Although women outlived men, winning had the same tonic effect on survival for both sexes. And those with multiple Oscars lived even longer. Multiple nominations counted for little without a win, however.

The researchers say they controlled for such factors as education, origins, and number of films made. "An Oscar is a major accomplishment that no one can take away," observes Redelmeier, who thinks the "peace of mind" it may bring "lasts a lifetime and may make a person much more resilient to all sorts of stresses."

From cable checker to whale tailer.

Spying on Whales in the Deep

Robot builders at the University of Tokyo have put a new spin on whale watching with an underwater robot that can home in on the animals using voice recognition. The whale-chaser is a customized 3-meter-long submersible originally developed by a telecommunications firm to inspect underwater cables. Tamaki Ura and colleagues at the university's Underwater Technology Research Center turned it into a wildlife monitor by adding hydrophones, signal processors, and a computer to recognize whale calls. In a recent test off Okinawa, the vehicle locked onto a humpback whale crooning about 5 kilometers away and went after it for 90 minutes, closing to within 50 meters. The robot should help researchers study whale behavior in the deep sea, says Akira Takemura, a marine biologist at Nagasaki University. Ura says they will add video cameras and plan to unleash a version that can follow whales for up to 24 hours.

No Benefit From Lowering Lead

Children suffer lasting cognitive damage from moderate lead poisoning even when they're treated at an early age with a drug that removes lead from their blood, according to a large clinical trial reported in the 10 May issue of *The New England Journal of Medicine*.

Studies have shown that low to moderate levels of lead in the blood—that is, 10 to 20 micrograms per deciliter—can cause deficits in the ability to pay attention and to reason abstractly, reducing IQ by 2 to 3 points. A drug called succimer, a chelating agent that mops up lead in the blood, can save the life of someone with severe lead poisoning. To see if it could prevent cognitive deficits in mild cases, epidemiologist Walter Rogan of the National Institute of Environmental Health Sciences in Research Triangle Park, North Carolina, launched a double-blind trial covering 780 2-year-olds, 75% of them African American, in four cities. Most had ingested dust from deteriorating lead-based paint and had blood levels ranging from 20 to 44 μg/dl. (The Centers for Disease Control and Prevention has established 15 μg/dl as the top safe limit.)

The research team cleaned the houses, gave the children either succimer or placebo pills for several months, and then tested them 3 years later.

Although the drug lowered lead levels, the treated children showed no differences in IQ or hyperactive behavior from the untreated children. Pediatrician John Rosen, who runs the Lead Program at the Children's Hospital at Montefiore in Bronx, New York, says the paper is "very important" and means that getting rid of lead-based paint in old houses is the only cure.

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