



Wild Inside

The first computed tomography scanner for wild animals is giving zoo veterinarians an unprecedented view inside their patients. The super-sized machine, officially unveiled on 6 July, “can scan a 250-kilogram black bear in 30 seconds,” raves Thomas Hildebrandt of Berlin’s Leibniz Institute for Zoo and Wildlife Research; that scan helped him and colleagues diagnose a football-size tumor in the bear’s chest.

The scanner has also caught a spinal problem in a lion, revealed

fish hooks in the digestive tract of an endangered river turtle from Borneo, and turned up more than 20 bone fractures in a baby elephant from Munich’s zoo, confirming the suspicion of a bone disorder in the animal. Veterinarians and caretakers decided to euthanize the baby elephant despite public protests, but there’s hope for the future. The scanner can precisely image bone and joint structure, so researchers plan to compare bone samples from other elephants around the world that have shown similar symptoms. The elephant’s mother is pregnant again, Hildebrandt says, so researchers want to find out whether the disorder is genetic or due to a dietary deficiency, ideally before the new baby arrives.

Click If You’re Picky

If you hate vegetables or fear anything more exotic than a French fry, scientists want to know. An online survey for adult picky eaters (<http://bit.ly/eat-picky>) was launched on 6 July to gather more information on what experts are considering classifying as an eating disorder, says study collaborator Marsha Marcus, a psychologist at the University of Pittsburgh’s Western Psychiatric Institute and Clinic. She and colleagues want to know when fussy tastes lead to poor health or embarrassing social situations. So even if it’s just raw tomatoes you can’t stand, sign in, she says. “We want to define the boundary between normal weird eating and real problems.”

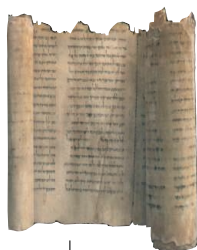
of the Dead Sea, where they were found in 1947. Others think they were written in Jerusalem and brought to Qumran when the Romans destroyed the city in 70 C.E. But the researchers are loath to weigh in. “The results concern only the parchment,” says physicist Giuseppe Pappalardo. “We still don’t know where the scrolls come from.”

The results simply mean the parchment could have been manufactured somewhere in the Dead Sea area, not necessarily in Qumran, says Norman Golb, a historian at the University of Chicago in Illinois. “At the most, the Italian scientists have found that the parchments were treated with mineral-infused waters, a common procedure in antiquity,” he says. “In this case, the body of suitable water closest to the main cultural center, Jerusalem, was the Dead Sea.”

Ancient Watermark

Could physics help uncover the origin of the Dead Sea Scrolls?

Researchers from the National Institute of Nuclear Physics’s National Laboratories of the South in Catania, Italy, took samples of one of the ancient documents, known as the Temple Scroll, and bombarded them first with alpha-particles and x-rays and then with protons. The x-rays the samples emitted revealed the concentrations of chlorine and bromine, which came



from the water used to turn animal skins into parchment. The elements occurred in the ratio found in water sources near the Dead Sea, indicating that the parchment was manufactured locally, the researchers announced 1 July at a conference in Surrey, U.K.

Scholars have long debated where the scrolls came from. Some think a Jewish sect called the Essenes penned them in Qumran, just northwest

On the cinema screen, a man and a woman embrace on a stark stage reminiscent of Japanese Noh theater. They disrobe and make love. The man tattoos the woman’s body with a bamboo quill, then stabs himself with the quill and dies.

The subject of this erotic art film? Math.

“I’ve always wanted to make a film [that would express] the beauty of mathematics,” says Edward Frenkel, 41, the film’s writer and star—and a mathematician at the University of California, Berkeley. The 26-minute *Rites of Love and Math*, a collaboration with director Reine Graves, premiered in Paris in April and has toured festivals around the world. It will be screened in October at the Sitges International Fantastic Film Festival of Catalonia in Spain.

In the film, Frenkel’s character, a mathematician, finds the “Formula of Love.” Ecstatic at first, he soon learns that evildoers want to harness it as a weapon. Resigned to death, he visits his lover, a beautiful Japanese girl named Mariko, for a last night of passion and to tattoo the formula on her body before committing suicide.

Frenkel says the formula actually comes from his own research on instantons, mathematical objects from theoretical high-energy physics (<http://arxiv.org/abs/hep-th/0610149>). Who says math isn’t sexy?

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