



COOL IMAGES

Postprimitive Impressionism

This work, entitled "Dinosaur," was painted by a gorilla named Michael who "ingeniously ... simulated his [*T. rex*] toy's spikes" by pressing the canvas on the ground, according to www.koko.org. The nonprofit site also

showcases works by Koko, another lowland gorilla who gained fame in the early 1970s when her trainer, Stanford psychology grad student Francine Patterson, taught her hundreds of words in American sign language. Whether Koko and other signing apes are communicating or simply mimicking their trainers has always been controversial, but the topic of late has undergone a revival among scientists. You might smirk at the interpretations of the pair's art, but some of their paintings aren't bad. A bouquet of flowers looks a bit like blurry Impressionism; and if we can believe that Michael painted his dog Apple from memory—well, his choice of black and white is dead on.

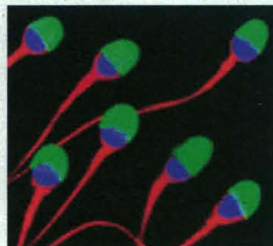
HOT PICKS

Metaphysical inquiry. This site's MetaPhys documents search engine combs through physics preprint servers such as that of Los Alamos, major publishers' sites, and even papers posted on departmental servers. You'll also find an international directory of physics departments, conferences, and other resources. www.physik.uni-oldenburg.de/EPS/PhysNet/physnet.html

Chemical sleuthing. It can take students awhile to get familiar with the squiggles on an infrared spectroscopy or nuclear magnetic resonance graph, techniques used to identify chemicals. WebSpectra aims to smooth the way with a set of problems—spectra and structures for 30 mystery compounds. w3.chem.ucla.edu/~webspectra

Watching creationism. Want to dig into the debate over teaching creationism in schools? Find out the latest on Kansas, read up on key court decisions, and more at this site from a group headed by a well-known proponent of teaching evolution. The Making Connections page lists sites on both sides—from creationist organizations to museum exhibits on evolution. www.natcensci.org

Fertile ground. The Spermatology Home Page offers background on fertility treatments, a sperm image gallery (check out the intriguing shapes of dolphin, bat, and possum sperm), and many good links: reproductive biology conferences, embryology discussion lists, pages on environmental estrogens, and more. For a fun break from the bench, listen to Monty Python's "Every Sperm Is Sacred." numbat.murdoch.edu.au/spermatology/spermhp.html



NETWATCH

edited by JOCELYN KAISER

Electrifying. Read up on Benjamin Franklin, reacquaint yourself with the differences between a semiconductor and an insulator, or bone up on electronics theory at Electricity Online, this year's winner in Thinkquest, a contest for Web sites designed by high school students. Or check out runner-up sites covering single-celled biology, cosmology, and other topics at www.thinkquest.org

SITE VISITS

Chasing Sprites

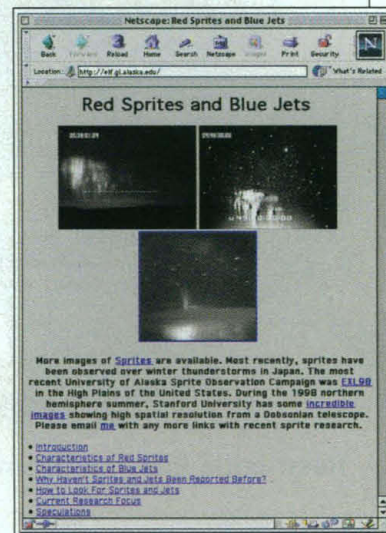
Watching a summer lightning storm from your porch can be a thrill, but above the thunderclouds, mostly out of sight, a show of Olympic proportions sometimes takes place: gigantic tongues of red licking as high as 90 kilometers into the ionosphere before disappearing an instant later. Discovered only 10 years ago by physicists testing a low-light video camera from an observatory, the eerie red sprites, beams of light called blue jets, and related phenomena are now being studied intensely to figure out their role in the planet's electrical circuitry.

Find out more at this University of Alaska, Fairbanks, site,^{*} which offers background, links to magazine articles, a bibliography, and images, including the first color photo of a sprite taken on 4 July 1994 (no, it was not an errant firework). In the vernacular of physics, the phenomena are described as "upper atmospheric flashes excited by thunderstorms"; but the Fairbanks researchers decided on the more lyrical term "sprites" "over pie and coffee one winter evening" in 1993, says the site, which also has a form for reporting sprite sightings. From the team's main page[†] you can leap to info about the Sprites '99 Field Campaign, which sent a balloon above the Midwest in August to capture sprites on video. This collaborators' site[‡] includes images from last summer as well as an essay that offers instructions for how—if you live in the high plains—you can look for sprites from your back porch.

^{*} elf.gi.alaska.edu

[†] sprite.gi.alaska.edu

[‡] www.fma-research.com



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