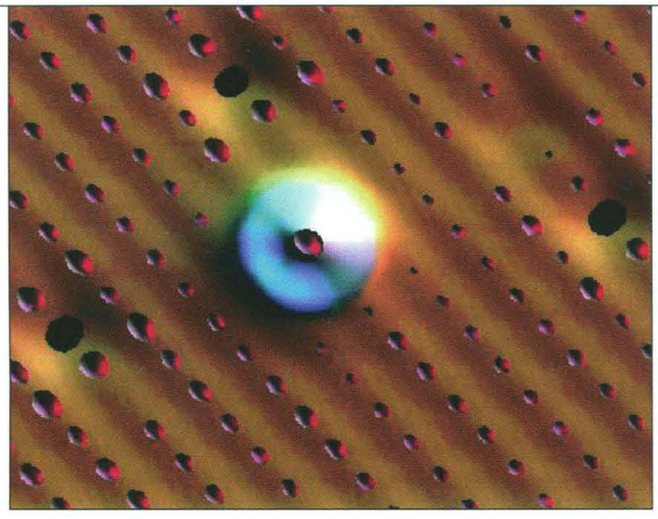
NETWATCH

edited by Jocelyn Kaiser



COOL IMAGES

Painting Atoms

Roswell and *X-Files* fanatics may claim it's a UFO that landed in a farmer's field, but the image above actually depicts a bluish atom of xenon (8.5 angstroms across) amid rows of red nickel atoms. It's one of 15 scanning tunneling microscopy (STM) images of nanoscale landscapes, mostly colorized, displayed on the Web by IBM's Almaden Research Center, the group that began nudging atoms around with an STM's pointed tip 8 years ago. Included are such famous images as atoms arranged as a "quantum corral" used to pen in electrons, and IBM spelled out in xenon atoms. The timeless exhibit remains a favorite nanotech link, perhaps because nobody else has matched the scientists' artistry. www.almaden.ibm.com/vis/stm/gallery.html

SITE VISIT

Plague Fever

If you're wondering when bubonic plague last broke out (in December, in Mozambique) or if deadly drug-resistant staph bacteria are making gains in your local hospital, surf over to Outbreak, a site packed with news and info on emerging diseases worldwide.

Outbreak is the successor to The Ebola Page, a wildly popular site that software entrepreneur David Ornstein created during the 1995 Ebola virus crisis in Zaire. Ornstein's broader site, aimed at raising public awareness of new diseases and improving early warning systems, covers everything from anthrax (and other biological weapons) to yellow fever. It chronicles outbreaks with dispatches from PROMED, the infectious disease e-mail list, and media clippings; this material was a bit stale last week, but Ornstein says it's up to the hour when some bug is making headlines. Some diseases, like bovine spongiform encephalopathy and monkeypox, also get their own subsections brimming with fact sheets, interviews, and other info. Big-name infectious disease experts contribute to and review Outbreak, which includes "exclusives"—for example, a recent interview with epidemiologist John Marr, co-author of the new thriller, *The Eleventh Plague*.

www.outbreak.org

NET NEWS

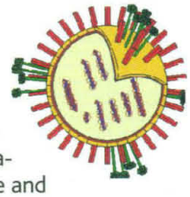
Center to Harness Next Internet for Science

Later this year, Northwestern University plans to open a new Center for Advanced Internet Research, devoted to wringing the best science from the emerging second-generation Internet. The center is mustering strong support from IBM, Cisco Systems, and Ameritech, three companies that played major roles in building the first Internet.

The center will carve its niche by developing ideas for helping scientists make full use of the superfast backbones at the core of the next Internet (*Science*, 24 April, p. 491), according to center director Joe Mambretti. Scientists across the country will be able to control instruments remotely on the Net, or interact in shared virtual environments—for example, exploring inside a human body or a turbulent nebula. Besides working on such high-end applications, the center will also develop "middleware" to enable applications to work efficiently—software to prioritize computing tasks, for instance, a job the present Internet simply ignores. Finally, it will host policy discussions on topics such as security. "I don't know of any other [organization] that has all of these components," says Mambretti.

This work will be spread out at various sites at Northwestern and IBM, whose researchers will help staff the center. Mort Rahimi, head of information technology at Northwestern, says financial support from the founding companies won't be set until next month. He notes, however, that IBM contributed $1.5 million last year to Northwestern for work on Internet2 (a university group helping to build the next Internet) and says that figure is "likely to increase."

HOT PICKS



Flu coup. Whether it's Hong Kong's avian flu or a more ordinary bug, medical researchers can now turn to what's billed as "the world's most comprehensive collection of genetic information about the influenza virus." The database, launched with more than 4000 nucleotide and amino acid sequences, includes such info as how a strain was first grown in the lab and its source. www-flu.lanl.gov/index.html

Biomath lessons. You can simulate evolution, learn how to model a synaptic response, toss chaos into the well-known rabbit-and-fox population problem, and more at this educational site, loaded with Java applets, on math and biology. www.bio.brandeis.edu/biomath/top.html

Ocean of words. Curious to know what a red tide is or stumped by an acronym such as MERMAIDS (a Mediterranean circulation study)? Try this hyperlinked glossary of oceanography and related geosciences. www-ocean.tamu.edu/~baum/paleo/paleogloss/paleogloss.html

SCIENCE ONLINE

Next week marks the beginning of a facelift for *Science* Online. One change is the URL: It will be www.scienceonline.org, an umbrella site for the magazine, *Science*NOW, Next Wave, and other online products. The home page for *Science* Magazine (www.sciencemag.org, *Science* Online's old URL) will sport new features, such as searching all issues by subject. More improvements will be added in the coming months.

Send Internet news and great Web site suggestions to netwatch@aaas.org