NETWATCH

edited by JOCELYN KAISER

COOL IMAGES

Material World

What do buckeyballs, superconductors and talc have in common? They're all inorganic materials, and they all come under scrutiny at Making Matter,* a Web gallery at the Institute Laue-Langevin in Grenoble, France. The institute houses a neutron source used to decipher atomic structures, and researcher Alan Hewat has created a tutorial using dozens of images computer generated with data from the institute's archive. The colorful images—manipulable in 3D—demonstrate how atoms pack in metals and rock salt, how sliding layers give talc its slipperiness, how holes in zeolites make the structures useful, and how a "charge reservoir" lets superconductors do their thing. In the rendering above of manganese oxide, an antiferromagnet, arrows show the moments of green manganese atoms that cancel each other out.

*www.ill.fr/dif/3D-crystals/index.html

HOT PICKS

Patent bonanza. A whopping 30 million patents can be searched at esp@cenet, a free database run by the European Patent Office (EPO). Although it covers 63 countries, including Japan, some listings include only bibliographic info or abstracts. You'll find full text and images for EPO, World Intellectual Property Organization, and U.S. patents. ep.dips.org

Moldy genes. Researchers looking for tips on growing *Neurospora* or a particular clone of *Aspergillus* may want to check out the Fungal Genetics Stock Center site. It offers techniques, conference abstracts, a peer-reviewed online newsletter, and meetings—plus info on the center's 9000 strains and gene libraries. www.kumc.edu/research/fgsc

Calls of the wild. Want to hear a great blue heron's honk, a howler monkey's bellow, a woodhouse toad's serenade, a yellow jacket's buzz? Listen to these and more at this site featuring sounds of nature. www.naturesongs.com

NET NEWS

Most Schools Now Online

Internet access in U.S. public schools is growing at a brisk pace, with more than half of classrooms now connected, according to figures released last week. But questions remain about whether teachers have the know-how to use the technology.

The National Center for Education Statistics reported that according to its fall 1998 survey, 51% of classrooms now have Internet access, compared to just 27% in 1997. Although a lower percentage of classrooms in poor schools is wired compared to rich schools, the gap is minimal at the level of schools, 89% of which are connected. The hook-ups have been fueled by the E-rate, a year-old federal program funded by phone companies that, despite budget cuts backed by congressional critics, has doled out $1.66 billion to subsidize schools' connections. President Clinton hailed the results, predicting last week that all classrooms will be wired by the end of 1999.

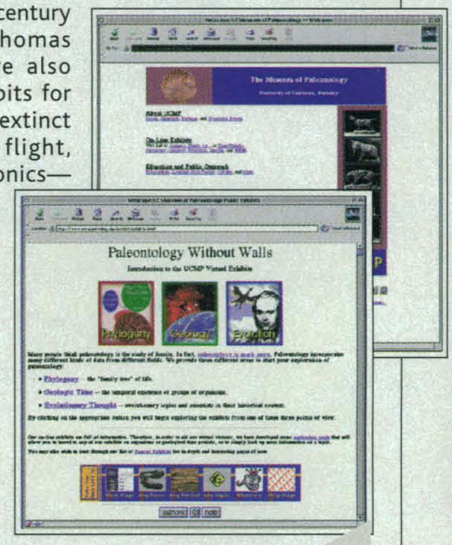
Some critics of the Internet-in-schools movement say that teachers are getting the technology without being trained to use it (*Science*, 23 October 1998, p. 587). That complaint is borne out by a survey of 416 university teacher preparation programs, released last month by the nonprofit Milken Exchange on Education Technology. Although two-thirds of the programs said they had adequate information technology infrastructure, fewer than half said their students use it in their practice teaching.

SITE VISIT

Digital Paleo Museum

Curious about when the Cretaceous Era began and ended (146 to 65 million years ago)? Wondering what a quagga is? Then visit the University of California, Berkeley, Museum of Paleontology Web site, where grad students have created a huge digital museum that answers these questions and more.

The online exhibits, called Paleontology Without Walls, are divided into three "wings": phylogeny, geologic history, and the history of evolutionary thought. More than 1000 exhibits range from a couple of screens on the quagga (an extinct relative of the horse) to several pages on 19th-century evolutionary biologist Thomas Henry Huxley. There are also stand-alone, special exhibits for some subjects, including extinct sabretooths, vertebrate flight, cladistics, and plate tectonics—complete with movies of shifting plates. Photo-essays describe field research to places like the Winter Coast in Russia, a site for Vendian (about 550 million years ago) soft-bodied creatures, among the oldest macroorganisms known. All the pages are connected with hyperlinks and a menu, so one can jump among taxa and time periods, call up a glossary, or link to the museum's specimen catalogs.



www.ucmp.berkeley.edu

The museum staff is also building an interactive section for children and their teachers. One feature will permit them to classify fossil fragments in an online lab. Such programs promise to draw even more visitors to the site, which already gets about a million hits per week.

Science ONLINE

Having trouble reaching a site in NetWatch? Instead of typing the URL into your browser, you can surf over from *Science* Online, where access to NetWatch is free with registration. Go to the home page (www.sciencemag.org), select the issue you want, and click on NetWatch.

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

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