COOL IMAGES

Armchair Space Voyages

DAVID SEAL/JPL

Data streams from distant spacecraft were once the only way to get a close glimpse of the planets, but these days you can fly by without leaving your desk. The Solar System Simulator (space.jpl.nasa.gov), based on a tool originally used by mission designers at NASA's Jet Propulsion Lab, creates striking pictures showing the location and apparent phase of any of 32 planets and moons as they would look from any other, or from four satellites—and you even get to pick the date. Above is the simulator's view of what the Galileo spacecraft would have seen on 21 July, as it coasted by Jupiter's moon Europa (whose cracked ice surface is suspected of harboring an ocean). The simulator site, which also features several movies, is part of a Web space library created by JPL's David Seal that includes zoom-in global texture maps of planets and moons, and some stellar space artwork.
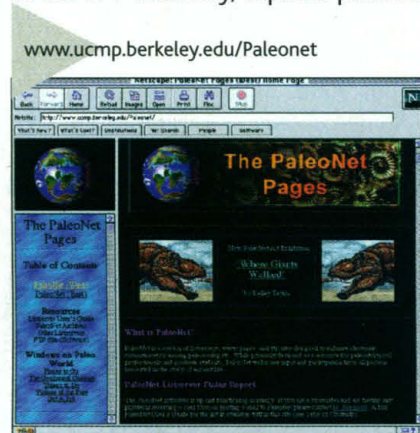
SITE VISIT

Where Past and Future Come Together

Although paleontologists can spend hours hunched over the bones of long-dead creatures, that hasn't stopped them from leaping into cyberspace—just take a look at the PaleoNet Web site and the first electronic paleojournal.

PaleoNet is both a site and an e-mail list on which some 850 subscribers swap info on everything from the latest dinosaur find to the K-T boundary, explains paleontologist Norman MacLeod

www.ucmp.berkeley.edu/Paleonet

of The Natural History Museum in London, who runs the two. The Web site holds a user guide and list archives; it's also a directory with hundreds of links to museums, fossil databases, bibliographies, job ads, and much more, including info organized by geologic period. Aimed at both scientists and the public, PaleoNet also hosts two art exhibits so far: dinosaur drawings and simulated photos of paleoscenes, such as mammoths looming out of a misty landscape.

Connected to PaleoNet is Palaeontologia Electronica (www-odp.tamu.edu/paleo), a digital journal that debuted last February (issue two appears in August). MacLeod, an editor, claims its 20,000 or so hits a month already rival the readership of many traditional paleojournals. No bones about it, the graphics are a real draw: Issue one features animations showing how ammonites (squidlike creatures with shells) might have gotten around, and a movie of nautiloids (ammonite ancestors) swimming in a sunny blue Paleozoic ocean.

NET NEWS

India to Spur Information Technology

The Indian government is hoping that new steps to stimulate India's information technology (IT) industry will boost the country from technology fledgling to software superpower.

India's burgeoning software industry has already attracted attention from companies such as IBM, which set up a $25 million research center in New Delhi last year. Adding to the momentum, a government task force on 7 July presented Indian Prime Minister Atal Bihari Vajpayee with an IT "action plan." One major recommendation is to end the government's monopoly as Internet service provider, a step meant to help bring prices down: Right now, going online costs about $4 an hour in India. The task force also proposes tripling loans to the IT industry, eliminating hefty tariffs on imported IT products, and encouraging Internet connections throughout schools and universities. Task force co-chair M. G. K. Menon, a physicist and former science minister, predicts these policies will boost the value of India's annual software exports from $2.7 billion now to $50 billion within a decade.

The plan is "a very good first step," says Thiagrajan Vishwanathan, director of the Indian National Scientific Documentation Center in New Delhi. But he cautions that information technology won't take off until India's optical-fiber network covers the country—still several years away.

HOT PICKS

Digital academe. Delve into some of the sweeping changes the Internet has brought to research by checking out The Impact of Electronic Publishing on the Academic Community, the free online proceedings from an international conference in Stockholm. tiepac.portlandpress.co.uk/tiepac.htm

Zzzzzz. A University of California, Los Angeles, organization runs the exhaustive Sleep Home Pages, where you'll find an online textbook on sleep, sleep research updates, bibliographies, book reviews, and more. bisleep.medsch.ucla.edu

Small wonders. Don't be left out of this veritable Who's Who in nanotechnology: Add your group to a global directory of nanotech research centers compiled with National Science Foundation support. The site also lists funding agencies, major reports, books, and conferences. itri.loyola.edu/nanobase

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SCIENCE ONLINE

One puzzle of immunology is that T cell surface receptors don't simply switch on and off; instead, they respond in a range of ways, depending on how tightly a ligand binds to them. In the Perspective on p. 528, Malissen discusses two reports that help explain why. The online article offers Web links to tutorials on the immune system, antibody databases, and many other resources. www.sciencemag.org/cgi/content/full/281/5376/528

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