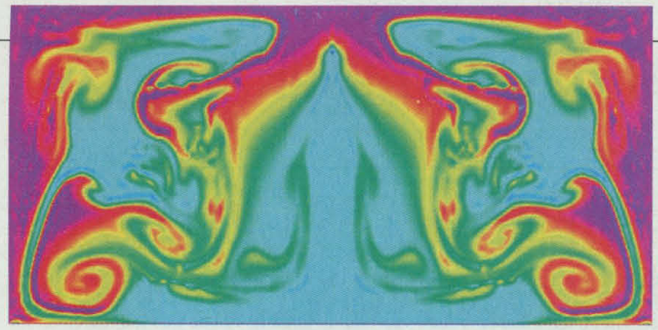

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COOL IMAGES

Going With the Flow

Wind rippling across water, air flowing over a jet wing, hydrogen gas collapsing to form new galaxies—all are complex problems tackled by computational fluid dynamics, which models how liquids and gases move. This filigree-like picture, for example, is a still from a simulation showing Rayleigh-Taylor instability, or what happens when fluids of different densities mix. (You might invoke Rayleigh-Taylor by slowly pouring water over a sugar solution, letting the layers settle, flipping them gently, then poking their interface with a pin.) Check out this site* for more movies by engineers at Innovative Technology Solutions Corp., a company in Albuquerque, New Mexico, that uses fluid dynamics to make U.S. nuclear sites safer—for instance, by calculating the potential spread of fire from a nuclear fuel storage area. Or follow the outside links to models of water droplets, galaxies, and a tutorial called the Album of Fluid Motion.

* www.itsc.com/movies/index.htm

HOT PICKS

China conundrum. "Can China Feed Itself?" is the question explored by this site, the Web version of a new CD-ROM that studies the food resources of the world's most populated country. Packed with maps, satellite images, charts of population growth, and other data, the site examines such factors as water scarcity and the role of technology in boosting crop yields.
www.iiasa.ac.at/Research/LUC/ChinaFood/index.htm

Martian music. If all goes as planned, the Mars Polar Lander mission, scheduled to touch down on 3 December, will stick out a microphone to collect the sounds of the Red Planet—the first outer space recording ever, apart from the voices of astronauts beamed back to Earth. Whether it's creaking equipment or howling winds, the sure-to-be eerie noise will emanate from planetary.org

Teaching environment. Hoping to spur better K-12 teaching about our natural world, a nonprofit organization has launched this environmental education site. Brief essays on topics ranging from coral reefs to climate change are packed with links to resources that include treaties, research departments, and a rainforest slide show. www.enviroliteracy.org

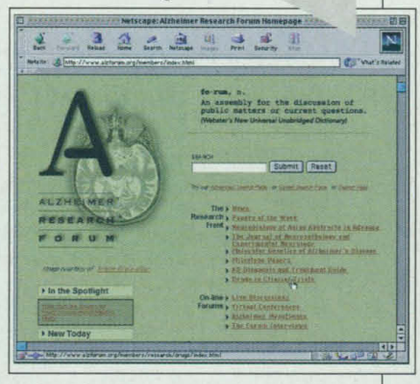
SITE VISITS

Alzheimer's Roundtable

Alzheimer's disease is one of neuroscience's murkiest pictures, but a Web site devoted to the dreaded killer is remarkably crisp and clear. Among its valuable resources, the Alzheimer Research Forum offers a guide to drugs in clinical trials, links to Alzheimer's-related patents, live panel discussions of hypotheses in vogue, and audio recordings of conference presentations. You'll also find abstracts from milestone papers dating all the way back to Alois Alzheimer's landmark description in 1907 of a 51-year-old woman's decline into dementia and the fibrous tangles later found in her brain during an autopsy.

The forum's in-depth interviews with individual top scientists plumb some of today's biggest puzzles in Alzheimer research. The interviewer, also an Alzheimer researcher, poses a standard slate of questions, asking subjects to describe their working hypotheses about the cause of Alzheimer's disease, speculate about the relentless march of molecular changes that results in dementia, fantasize about experiments to test current theories, and discuss strategies for future treatments. From there the Q&A heads off in directions charted in part by the site's visitors.

www.alzforum.org/members/index.html



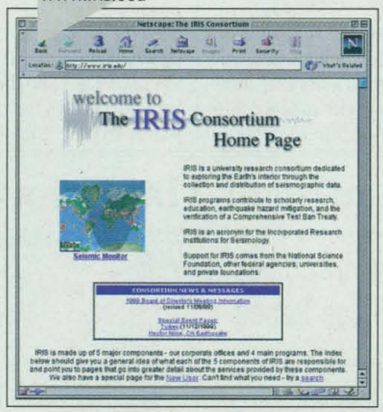
The forum solicits feedback on almost every feature of the site. Besides posting questions for future interviews, visitors can vote on which papers deserve "milestone" status and suggest topics for panel discussions or journal clubs before jumping into the fray themselves.

Seismic Sentinel

For a whole-Earth guide to our planet's rumblings—be they the two deadly earthquakes in 4 months in Turkey or the faint threat of a major tremor in the U.S. Midwest—visit the Incorporated Research Institutions for Seismology (IRIS), a consortium of 91 institutions that oversees the world's seismographic data.

The IRIS site was originally set up for researchers "as a big clearinghouse" for downloading seismic data, says Web master Deborah Barnes, and its 2000-plus pages "may seem a little overwhelming," acknowledges an introduction to the site. Get oriented by clicking on the Seismic Monitor, a world map dotted with scores of circles showing seismic activity every half-hour. For data collected by over 1200 permanent monitoring stations, try the Data Management System page, where you can pick from various viewing tools depending on whether you like your info raw or massaged, historical or this very second. Other features friendly to neophytes include buttons for generating maps of quakes in specific regions and animations of fault types—they can slip up, down, or sideways. IRIS also sets up special pages for major quakes—most recently in Turkey, Mexico, Taiwan, and California—that include seismograms, a map of historical temblors in that area, links to seismology reports from that country, news sources, and other relevant Web sites.

www.iris.edu



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