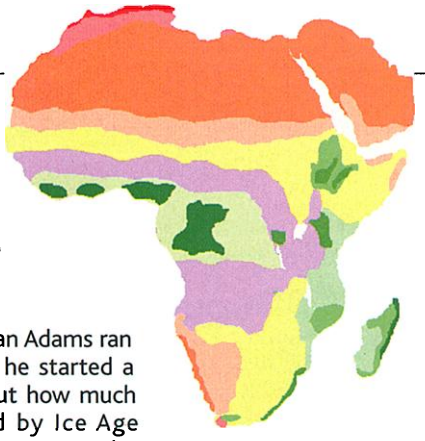
NETWATCH

edited by JOCELYN KAISER



MAPS

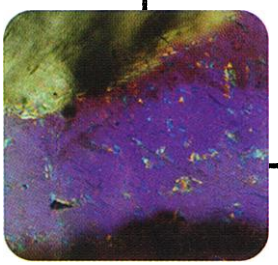
Greening the Past

A few years ago, Jonathan Adams ran into a roadblock when he started a Ph.D. project figuring out how much carbon was absorbed by Ice Age ecosystems: There were no maps showing global vegetation ranges 20,000 years ago. To fill in the blanks—created by scientists reluctant to pool their data—he boldly began combing the literature and consulting colleagues about fossil plants and soils. The result is his 150,000-year Quaternary vegetation atlas. The well-trafficked site offers some interesting insights. During the last glaciation around 20,000 years ago, for instance, the central African, Asian, and Amazon rainforests all shrank.

www.esd.ornl.gov/projects/qen/nerc.html

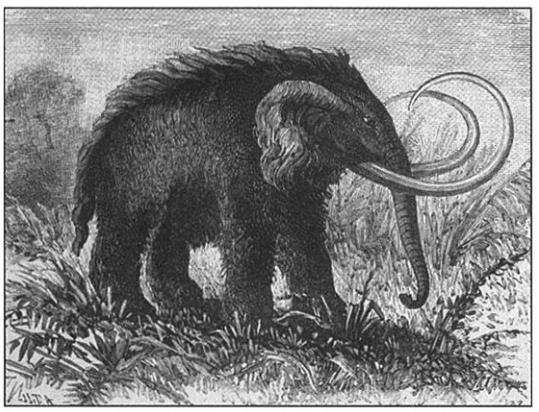
IMAGES

Spelunking for Climate Clues



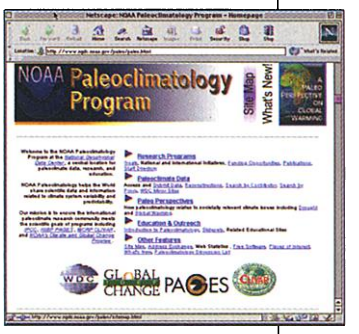
If you want to find out what the climate was like ages ago, one way is to grab a flashlight and head for a cave. Stalagmites, stalactites, and other mineral deposits known as speleothems contain chemical and mineralogical clues to past rainfall and temperatures. This Atlas of Speleothem Microfabrics brims with dozens of images of the formations under a microscope (called "microfabrics"). Created by L. Bruce Railsback of the University of Georgia, Athens, as a reference, the site also includes a glossary and bibliography.

www.gly.uga.edu/railsback/speleoatlas/SAindex1.html



RESOURCES

Paleoclimate Central



Scientists build a picture of ancient climate using all sorts of indirect clues, from tiny ocean fossils to the rings of old trees (see p. 658). The world's official storehouse for these "proxy data" is the National Oceanic and Atmospheric Administration's Paleoclimatology Program. Its Web site also offers loads of links and useful background information.

Archived here are data on everything from Pacific corals (which bear isotope signatures of sea temperatures) to Greenland ice cores (which contain trapped ancient CO_2 and isotopes) to loess in China (layers of silt from past dust storms). The site gets about 75 new data sets from scientists per year and covers some 10,000 locations around the globe, says data manager Bruce Bauer. His team is working on connecting the site's databases so users can pull up all data for a specific place.

There's also a primer on paleoclimatology and other educational features, including one on North American droughts. It concludes that the Dust Bowl of the 1930s was a brief blip compared to more severe droughts 500 years ago. If you're a scientist, check out a new page of resources on "paleotempestology," the study of past hurricanes.

www.ngdc.noaa.gov/paleo

This week, NetWatch checks out Web sites on paleoclimatology, the subject of this special issue. Besides this far-from-exhaustive list, two sites we reviewed previously are not to be missed: the aptly named Ultimate Tree-Ring Web Pages (web.utk.edu/~grissino; 7 August 1998, p. 747) and the Palynology Page, which covers ancient pollen and spores (www.geo.arizona.edu/palynology; 7 April 2000, p. 7). Another good source of paleoclimate links is this Enhanced Perspective (www.sciencemag.org/cgi/content/full/288/5470/1353).

LINKS

Webful of Paleoclimate

For a list of essential paleoclimate links, visit the World Wide Web Virtual Library: Paleoclimatology and Paleoceanography. You'll find academic institutions and journals, societies and databases, tutorials, and much more.

www.datasync.com/~farrar/www_vl_paleoclim.html

EXHIBITS

Run With the Mammoths

Of all extinct animals, perhaps only dinosaurs tug on the imagination like the mammoths, mastodons, and saber-toothed cats that roamed North America and Eurasia late in the last Ice Age. Take a jaunt through the ice ages and their late fauna at the Illinois State Museum's online exhibits.* Animations show ice sheets waxing and waning, and text describes such matters as Milankovitch factors—shifts in Earth's elliptical orbit that partly explain Earth's eight glaciations over the past 750,000 years. In a section on the U.S. Midwest 16,000 years ago, check out a saber-tooth skeleton and a discussion of whether people killed off such big mammals. For a European perspective on these critters, visit the Mammoth Saga site in Sweden.†

* **www.museum.state.il.us/exhibits/ice_ages/index.html**

† **www.nrm.se/virtexhi/mammsaga/welcome.html.en**

Send great Web site suggestions to netwatch@aaas.org

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