NetWatch

edited by Mitch Leslie

IMAGES

Plants in Print

London pharmacist and botany buff William Curtis (1746–99) didn't plan to make publishing history when his magazine for gardeners sprouted in 1787. Still published today, *Curtis's Botanical Magazine* is the longest-running plant periodical and is renowned for its gorgeous illustrations. At this site* from the U.S. National Agricultural Library in Beltsville, Maryland, you can leaf through more than 1000 plates from the magazine's first 20 years. Along with profiles of European species such as the Spanish flag (*Iris xiphium*, above), the work introduced readers to many of the new plants botanists were discovering all over the British Empire.

Open this site from the University of Georgia Libraries,† and you almost feel like you're browsing well-used copies of the first 20 issues. Free software lets you flip through digital images of the original pages—complete with water stains and ink blots.

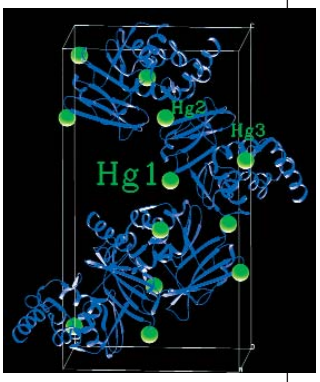
* www.nal.usda.gov/curtis

† djvued.libs.uga.edu/cbm/cbmmenu.html

EDUCATION

The Crystallographer's Companion

This tutorial offers aid to crystallographers who have gathered their data but aren't sure what to do next. To guide researchers from raw numbers to a molecular structure, the 4-year-old site from Michael Sawaya of the University of California, Los Angeles, provides tips on everything from choosing and using software to performing lab procedures. For example, crystallographers often embed heavy atoms such as uranium or mercury in a protein (right) to help clarify the molecule's architecture. The site can help readers select the right atom and explains the technique for getting it in place, including safety guidelines for working with the dangerous substances. Another section lays out the pros and cons of different graphics software for displaying results. All but one of the programs Sawaya discusses are available free on the Web.



www.doe-mbi.ucla.edu/~sawaya/tutorials/tutorials.html

EXHIBITS

From Here to Modernity

Today's consumers throw away products that would make our great-grandparents gasp with astonishment—laptop computers, cell phones, DVD players, those annoying CDs from America Online. A pair of new sites from Britain's National Museum of Science and Industry traces the evolution of modern technology and probes the interplay between invention and culture.

A straightforward historical site, Making the Modern World,* looks back at the last 250 years, highlighting the impact of important innovations on people's lives. From the site's timeline, multimedia excursions whisk you to destinations such as Portsmouth, England, in 1805, where a factory that turned out blocks for ships' rigging opened the first assembly line. Venture back to the mid-1800s to learn about the development of medical instruments for taking blood pressure and detecting the heart's electrical activity.

Ingenious† aims to be more provocative, focusing on questions such as how inventions have altered our sense of identity and expectations of medicine. You can check out debates on subjects such as whether the human races really exist. Or chart your own historical journey by browsing photos of more than 30,000 objects held by the museums, from ancient Egyptian surgical knives to a sweater knitted from the wool of Dolly, the first cloned sheep. Here, two women watch the 1930s version of big-screen TV.

* www.makingthemodernworld.org.uk

† www.ingenious.org.uk

TOOLS

Protein Nonconformists

Instead of folding into a neat, three-dimensional structure, many proteins are free spirits. Parts or all of the molecule refuse to settle into a set shape, assuming a state researchers call "disordered." Scientists are taking notice of this proclivity because disordered sections carry out tasks such as grasping DNA, and disordered proteins characterize Alzheimer's disease and other illnesses. These two sites from the European Molecular Biology Laboratory in Heidelberg, Germany, can help molecular biologists analyze disorder. DisEMBL* pinpoints likely disordered regions in a protein or stretch of amino acids. GlobPlot† gauges the tendency for disorder, a measure that might help pinpoint disordered regions and previously unrecognized ordered ones that perform particular functions.

* dis.embl.de

† globplot.embl.de

Send site suggestions to netwatch@aaas.org. Archive: www.sciencemag.org/netwatch

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