

edited by Mitch Leslie



EXHIBITS

Regaining One's Marbles

The Internet has accomplished what decades of public campaigns and bitter squabbling haven't: reuniting the famous marble frieze from the Parthenon in Athens, a sculpture 160 meters long that wrapped the temple with religious and mythic imagery. Although the actual frieze remains in fragments housed in Athens, London, and Paris, archaeologists and the public can now study a complete online version at this site maintained by the Greek government.

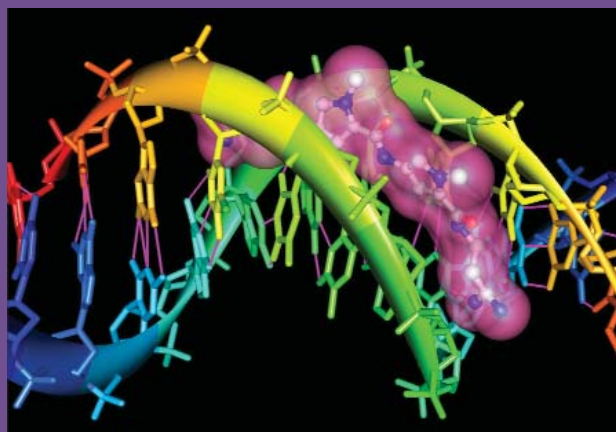
Created between 447 and 432 B.C., the meter-high frieze depicts some 360 human figures, more than 250 animals, and the 12 gods of Olympus, all in a sacred procession to the Acropolis. Two hundred years ago, the British diplomat Lord Elgin sawed off and carted away half of the frieze, and the marbles remain at the center of a heated debate over repatriation. The virtual tour brings together for the first time all the remaining stones from Elgin's section, now in the British Museum, and the sections held by the Louvre and the Acropolis Museum. You can scrutinize digitized photos and stone-by-stone descriptions of the frieze, or read background information regarding its design and history. This group of horsemen (above), for instance, formerly galloped along the north side of the temple. Where stones are incomplete due to damage, drawings of the missing sections dating back to the 17th and 18th centuries supplement the photos.

zeus.ekt.gr/parthenonfrieze/index.jsp?lang=en&w=1152

SOFTWARE

Molecules on Parade

Aimed at everyone from drug designers to researchers tracking the nuances of protein evolution, Chimera is a jazzy molecular modeling package from the Computer Graphics Lab at the University of California, San Francisco. Users can import atomic coordinates from databases such as the Protein Data Bank or upload their own measurements, then manipulate and analyze molecular architecture. The program flags likely hydrogen bonds and pinpoints landmarks such as helices or sheets within messy 3D data. You can create catchy graphics—for example, the program lets you install windows in bulky molecules to expose their internal organization. What looks like a piece of chewed bubblegum in this image (above) is a molecule of the antitumor drug netropsin wedged between two DNA strands. Chimera can also parse protein sequence data, aligning matching segments and illustrating the structures they encode. The package is free for researchers in academia, government, and nonprofit organizations, and its creators plan to release a revamped version every 6 months.



www.cgl.ucsf.edu/chimera

RESOURCES

Warming Up to a Frigid Sea

Bering Climate, a new site from the U.S. National Oceanic and Atmospheric Administration, offers a wealth of data for researchers studying the ecosystems and climate of the Bering Sea and how they might respond to global warming. Such questions are particularly important because the sea supplies half of the seafood eaten in the United States. Visitors can trawl more than 40



data sets on ice cover, winter surface temperatures, salmon catches, and other measurements. You can download the data, plot them, or check for correlations between data sets. A photo gallery lets you meet some of the sea's denizens, such as this puffin (above), and a plethora of links summons other sources of information.

www.beringclimate.noaa.gov/index.html

DATABASE

The Lowdown on a Killer Bug

Tuberculosis, the disease that slayed John Keats, Jane Austen, and George Orwell, remains a leading killer, responsible for about 2 million deaths worldwide every year. Researchers working to foil the evasive TB bacterium can round up plenty of information on its genes and proteins at TubercuList, a genomic database from the Pasteur Institute in Paris. The site brims with data on some 4000 genes from *Mycobacterium tuberculosis*. Pick a gene and learn the function of the protein it encodes, call up a map showing its chromosomal location, or pinpoint nearby genes. Each entry also lists relevant references and lets you download the gene's DNA sequence or the amino acid sequence of its protein for further analysis.

genolist.pasteur.fr/TubercuList

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