

Web alert

Science museums

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This month's Web alert takes a decidedly school-holiday feel as we turn our attention to the varied world of the science museum. The Web alert reviews some of the services and information that museums have to offer online.

A cursory glance at the web reveals just how diverse and widely spread science museums are. A useful starting point is the site maintained by Mark W Maimone of the Jet Propulsion Laboratory at the Californian Institute of Technology (<http://www.cs.cmu.edu/%7Emwm/sci.html>). This page lists many museum websites from around the world, ordered by continent, offering users a selection that they may not find using conventional search engines. Although the site is not rigorously maintained (some of the addresses are out-of-date), it includes links to many types of science centre, ranging from planetaria to industrial science centres. Some of the North American science museums have been reviewed, and the reviews are linked to the site, which could sway the balance in deciding whether to visit the museum and might give some hints on what to look for when you get there.

Two other useful sites for finding museums are the Virtual Museum Science Database (<http://www.coe.missouri.edu/~perfsppt/proj1/jon3>), and a comprehensive site provided by the University of Reading (<http://www.museums.reading.ac.uk/>).

Science museum resources on the web range from sites to publicize and inform about the science museum, to sites that also have a virtual component — an

enhancement and extension to the museum — to totally virtual museums. Although virtual museums cannot provide that feeling of having a fun day out with the family, they can be highly educational and interactive. Websites associated with a real museum allow you to re-visit anytime, and perhaps check out the exhibits that you didn't quite have time to see. The real challenge for museum websites is to offer interactive exhibits that work as well as or perhaps better online (away from the crowds and queues) than visiting the museum.

An example of a museum site that includes a virtual component, in addition to information on the museum, is the Museum of Science and Industry (<http://www.msim.org.uk/>) in Manchester, UK. Potential visitors can gain information about the real museum by viewing a virtual map, and they can then go a step further and play virtual versions of some of the interactive exhibits present at the real museum.

The Natural History Museum (<http://www.nhm.ac.uk/>) in London, UK has even more of a virtual component. The site is extensive, and has links to real exhibits and offers people the chance to become involved in the research associated with the museum. But it also has several interactive online exhibitions, which really make the site much more than a website about the museum. For example, you can view virtual reality fossils, with the aid of an appropriate plug-in, and take part in a quiz to identify mystery objects from the natural world.

The Exploratorium in San Francisco, California (<http://www.exploratorium.edu/>) provides an organised and informative website that includes many interactive online exhibits. You can also view movies of the interior and exterior of the Exploratorium. Buying tickets

online is easy, and you can join the virtual mailing list.

As touched on already, some of the online exhibits or interactive displays at the museum websites require you to download, or already have, freely available plug-ins. For example, at the American Museum of Natural History website (<http://www.amnh.org/>), in the dinosaur exhibition section, you can view fighting dinosaurs. And in the associated Rose Center for Earth and Space (<http://www.amnh.org/rose>) you can view animations of galaxies and black holes, both using appropriate plug-ins.

The Italian National Museum of Science and Technology website (<http://www.museoscienza.org/english/Default.htm>) has a focus on the work of Leonardo da Vinci. There is a 'virtual Leonardo' three-dimensional section, developed by the museum and Milan's Polytechnic. Here you can walk (or fly!) around a virtual representation of the museum, operate some of Leonardo's machines, and even meet other visitors!

Moving entirely into the realm of cyberspace, there are some museums that only exist on the web. The San Jose Virtual Museum (<http://www.sjsu.edu/depts/Museum/aamenu.html>) is one such place. This virtual museum is devoted to famous scientists. The site provides an extensive list, linking to a brief description of the life and achievements of the scientists.

To finish, we return to the school-holiday spirit and to many children's favourite natural history topic. The Dinosaur Museum, Dorchester, UK (<http://www.dinosaur-museum.org.uk/>) has a website showing the museum's life-size dinosaur reconstructions, audio-visual and hands-on displays and also contains downloadable notes for teachers. The icing on the cake is surely the offer of online access to the Museum's Dino-club (although *Chemistry & Biology's* membership had not been confirmed at time of press).