

no harm.” The John F. Kennedy Special Warfare Center and School is currently working on a CD-ROM and Web materials to support the printed training aid.

Next year, the U.S. Committee of the Blue Shield will begin a pilot program to train U.S. military civil affairs units in recognizing cultural property and emergency response to cultural property at risk. Training troops to recognize archaeological sites would be a significant step forward, notes John Russell, a professor of art history and archaeology at the Massachusetts College of Art and former senior advisor to the Iraqi Ministry of Culture under the Coalition Provisional

Authority, the transitional government following the U.S. invasion of Iraq. Untrained commanders have sometimes placed military installations directly on top of archaeological sites in Iraq, said Russell, also a Blue Shield board member. “Field commanders usually want to do the right thing with respect to heritage but lack the necessary information. Greater heritage awareness . . . should allow them to make informed choices and prevent needless destruction.” For more information about the U.S. Committee of the Blue Shield, visit www.americanblueshield.org.—Erik Ledbetter, senior manager of AAM’s international programs

From Birds to Biodiversity

Evolution can be a difficult concept for adults to understand, but the New York Hall of Science is taking that challenge one step further. The museum received a \$2.5 million grant in February from the National Science Foundation for its Life Changes research project, funding four years of research on how children ages 5 to 12 learn about evolution. It will culminate in a traveling exhibition.

“As a scientist, I feel it’s important for people to understand the scientific reasoning behind evolution, certainly in terms of the creationist/intelligent design debate,” says project director Martin Weiss, vice president of science at the Queens, N.Y., museum. “You can understand a good deal about health, the environment, biodiversity—all sorts of biological questions about the world around us are comprehensible through the understanding of evolution.”

By studying how children learn about some basic concepts of evolution—such as variation, inheritance, selection and adaptation—museum staff are hoping to parlay what they learn into better exhibits for children down the road. “The idea

of approaching children is crucial because they are a large part of our audience in science museums,” says Weiss. “If we can understand how they learn about natural selection, speciation or evolution, then we might be able to approach other complex sciences in a similar way. We can tailor presentations to them in a way that takes into account their cognitive development.”

One way the museum will illustrate these concepts is with the use of discovery boxes throughout the exhibition, which Weiss says could be filled with materials that follow the story of evolution and provide hands-on learning for children. “It might contain fossils, it might contain an activity related to the evolution of [Charles] Darwin’s finches’ beaks and how different-shaped beaks are better for eating certain types and sizes of seeds,” he says, referring to Darwin’s study of finches in the Galapagos Islands that is said to have aided his understanding of evolution.

Weiss’ fellow principal investigator, cognitive developmental psychologist E. Margaret Evans, has been researching how children ages 5 to 12 learn about science for 15 years through her work at the



University of Michigan at Ann Arbor and other institutions. She says the project will use birds, such as finches, to demonstrate evolution. "One of the major things that kids are interested in is dinosaurs, so we can do the dinosaur-bird connection," she says. "One thing we're experimenting with is to tell it in the sense of a story, and the story will be about how you go from small changes or variations to the incredible kinds of changes we see, such as the ancestral link between dinosaurs and birds. It's not just knowing the link between dinosaurs and birds but understanding how that happened."

To conduct the research, the museum is also partnering with the Center for Human Growth and Development at the University of Michigan; the North Museum of Natural History and Science in Lancaster, Pa.; the Miami Museum of Science & Planetarium in Florida; the Institute for Learning Innovation in Annapolis, Md., and the Association of Science-Technology Centers in Washington, D.C.

While Weiss maintains there is no political agenda behind the timing of the exhibit, he does recognize that evolution is a sensitive topic in light of the current political landscape. "One of the hurdles the

"A museum setting always gives legitimacy to scientific ideas.

It gives people a way to explore them in a nonthreatening manner."

Evans adds that the exhibit can only enhance the research she has done over the years. "I think a museum setting always gives legitimacy to scientific ideas. It gives people a way to explore them in a nonthreatening manner."

In addition, the exhibition will become an integral part of her continuing research on children's cognitive development. "It has broader implications beyond this," she says. "After the exhibit is built, I will do a controlled study on the extent to which the exhibit impacts children's understanding of pre-evolutionary principles. We will give our results back to the museum community and the cognitive development community."

exhibit has to overcome is venues for the museums who are going to rent it, since many have concerns about their communities—in the sense that a survey we did indicated there are concerns among institutions about having an evolution exhibition," he says.

Perhaps by keeping the focus away from politics and the spotlight on science, the museum can successfully pull off an exhibition featuring such a hot-button issue. "What we're doing is presenting science; we're not presenting a political attitude," Weiss explains. "And we have no interest in confronting our visitors' religious beliefs." —Rina Rapuano ■