Cave Art Redux

The cavern holding the world's oldest known cave paintings has been barred to visitors since its 1994 discovery in southern France (*Science*, 12 February 1999, p. 920). But tourists will soon get a chance to see replicas of the Grotte Chauvet's spectacular but fragile artwork under a deal inked last month by French officials. The $35 million project will reproduce images from the cave's 30,000-year-old gallery of lions, horses, and other animals, and is expected to draw 500,000 visitors a year when it opens in 2003.

The plan for "Chauvet II" follows the success of Lascaux II, an exact replica of the 17,000-year-old Lascaux Cave opened in 1983. Lascaux was closed to the public when its paintings began to deteriorate due to an onslaught of visitors. Chauvet II, however, will not be an exact replica of its namesake, currently sealed behind a steel door which is under 24-hour video surveillance. The 6500-square-meter museum will display just a sample of the cavern's 400 masterpieces, says archaeologist Dominique Baffier of the Laboratory of Prehistoric Ethnology near Paris, a leader of one Chauvet research team. And planners haven't decided if they will build an artificial cave or use painted reproductions, photography, video, or other techniques to display the art. "But if the work is done well, it can give an extraordinary impression," says Baffier. "The public can have the same emotion that we do when we are working in the cave."

Masterpiece may be replicated.

Columbus, Syphilis, and English Monks

The theory that Christopher Columbus's crew carried syphilis back to Europe from the New World has sprung another leak. Skeletons recently unearthed from a medieval friary in the U.K. show unmistakable signs of the disease, researchers say, suggesting that England was hit by the scourge at least 50 years before Columbus's voyage.

The so-called Columbian theory of syphilis's spread was based on finding skeletal remains bearing the signature of the disease—thickened leg and arm bones and skull scars—in a suggestive pattern. Although 18th and 19th century archaeologists had discovered plenty of diseased remains at prehistoric sites in the Americas, they found no traces of the disease in European bones until a major epidemic hit Europe about 1500, just after Columbus returned from his 1493 voyage. In the last decade, however, researchers have unearthed about a dozen pre-Columbian skeletons in England and Ireland that also showed signs of the disease. But until recently the oddball cases weren't enough to sink the Columbian theory.

Now, paleopathologist Anthea Boylston of the University of Bradford and her colleagues have uncovered evidence of a local mini-epidemic that predates Columbus's homecoming. In an as-yet-unpublished study, the team examined 245 skeletons unearthed from a cemetery in Hull in northeastern England that was used between 1319 and 1539. They found three skeletons with definite signs of the disease and more than 100 others with trace indications. Radiocarbon dating of the most obvious syphilis sufferer revealed that the man died between 1300 and 1450, well before Columbus's birth. "There's no doubt these guys had syphilis," says Columbian proponent George Armelagos of Emory University in Atlanta. But the small number of European cases is still troubling, he says: "It's not the epidemiological pattern you'd expect at all."

If *Treponema pallidum*—the syphilis pathogen—was not a stowaway with Columbus, how did it find its way to England? Some scientists believe that seafaring Vikings, who reached Canada's eastern shore hundreds of years before Columbus, were carriers. Viking merchants began visiting northeastern England around 1300, for instance, just about the time that the Hull skeletons start showing signs of the disease.

Bio-Lured

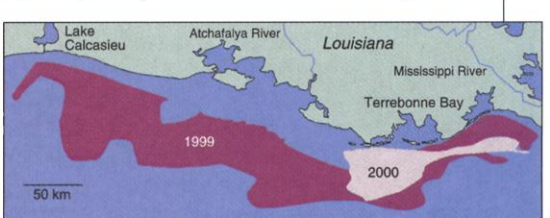
The siren song of biology has seduced another prominent physical scientist. Astrophysicist and computer whiz George Lake announced last week that he is joining the new Institute for Systems Biology in Seattle, Washington.

Lake, a professor of astronomy and physics at the University of Washington, Seattle, for 15 years, is known for developing computer models that provided new insights into cosmology and the birth of planets. But he recently concluded that his former students "could capably carry on that work," and an informal chat with gene-sequencing pioneer Leroy Hood, who founded the institute last January, evolved into a job offer. He'll put his brainpower behind the Digital Life Initiative, a government-sponsored effort to create a comprehensive information system for biology.

Lake says that "it has become clear to me that biology has some of the hardest problems out there, with some of the most compelling reasons for finding solutions."

Zoned Down

The Gulf of Mexico's dead zone shrank this year. New data released last week show that the sea area off Louisiana's Mississippi River delta containing low or no oxygen covered just 4400 square kilometers in July, down from 1999's record-breaking 20,000 square kilometers (see map below). The zone, within which fish, shrimp, and other animals suffocate if they can't flee, has averaged about 16,000 square kilometers since 1993, notes dead zone mapper Nancy Rabalais of the Louisiana Universities Marine Consortium. The shrinkage this year is due to spring drought conditions in the Mississippi Basin, which reduced the nutrient flows that fuel algal blooms in the Gulf. The news comes as government officials put the final touches on a plan to choke off the dead zone by reducing fertilizer runoff and other pollutants along the Mississippi (www.epa.gov/msbasin/fr-actionplan.html).



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