

still mostly embedded in the limestone characteristic of China's 120-million-year-old Yixian formation.

The fossil's European owners took it to the Natural History Museum in Milan, Italy, where researchers, while partially preparing the fossil, discovered parts of the skin and the quill-like filaments. Realizing that the specimen was an important find, one of the dealers, geologist Flavio Bacchia, invited an international group of experts, including IVPP's Dong Zhiming, to examine the specimen in 2000. Zhiming and others urged that the specimen be returned to China. That summer, a representative of the dealers went to Beijing to negotiate the psittacosaur's return in exchange for casts of feathered dinosaurs, but the deal foundered. "Bacchia was sincere in his desire to return the fossil to China, but he and his German partner had invested a lot in the specimen," says Eric Buffetaut of France's CNRS research agency in Paris, a member of the expert group.

After this setback, the dealers sold the fossil to the Senckenberg for about \$70,000 in June 2001. Steining says that the museum bought the fossil to save it for research: "We realized the scientific value of the specimen and decided that it must not disappear into a private collection."

Last month, German newspapers reported that the Chinese Society of Vertebrate Paleontology had gone on record as favoring repatriation of the fossil. But last week Steining said that he has not responded to a letter from the society because it was not printed on letterhead and lacked a signature. "To date we have received no official inquiry from the IVPP to return the fossil to China," he says. Steining says he wants to work out a deal with Chinese officials whereby the specimen would be the property of China but would be exhibited at the Senckenberg. But IVPP director Zhu Min apparently has no interest in such a deal: "The prerequisite is that the fossil must return to China." Once that happens, he says, "we can negotiate on whatever they want to discuss."

—SABINE STEGHAUS-KOVAC

Sabine Steghaus-Kovac is a writer in Frankfurt. With reporting by Erik Stokstad.

HOMESTAKE MINE

Neutrino Lab Detects Heavy Political Fallout

The National Science Foundation (NSF) is still mulling over the merits of a \$281 million proposal to convert a South Dakota gold mine into the world's deepest underground laboratory. But the politics are very much on the surface, with implications for NSF, other major research facilities, and, probably, control of the U.S. Senate.

The scientific plan before NSF officials

would transform part of the 125-year-old Homestake Gold Mine into a 2300-meter-deep facility for studying elementary particles called neutrinos, as well as experiments in the geological and life sciences (*Science*, 15 June 2001, p. 1979). Pressed by a company-imposed deadline to close and flood the mine, backers last year decided not to wait for NSF's approval and took their case to Congress. Legislators obliged by appropriating \$10 million to keep water out of the mine. Last December, lawmakers also wrote language to protect the mine's owner, Barrick Gold Corp. of Toronto, Canada, from future environmental lawsuits.

But the deal, crafted by Senate Majority Leader Tom Daschle and Democratic colleague Tim Johnson, both of South Dakota, and the state's Republican governor, Bill Janklow, was modified at the last minute to satisfy House Republican leaders. Conservative talk radio host Rush Limbaugh and others



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Follow my lead. A proposed underground lab in Lead, South Dakota, has become a hot political issue.

had complained that the Senate language would have saddled U.S. taxpayers with millions of dollars in cleanup costs. But Barrick officials have threatened to pull out of the deal due to the House revisions that were adopted.

The mine has also become an issue in the race between Johnson and Representative John Thune (R-SD), a contest that could decide which party controls the Senate. Johnson has said that House Republicans "dropped the ball" on the laboratory, implying that Thune would be responsible for losing the economically important project if the company pulls out. But in recent television advertisements, Thune says he worked hard to close the deal. Last week Thune claimed credit for convincing President George W. Bush to put nearly \$10 million in his 2003 budget request to keep the project moving while NSF ponders the laboratory's scientific merit.

In addition to being the cause of this polit-

ical sparring, Homestake has made itself an uninvited presence in NSF's 2003 budget request. In a section on "early-stage planning for potential large facilities," the White House instructs the agency to help the National Academy of Sciences design a study reviewing a planned \$240 million neutrino detector at the South Pole, called IceCube, in light of "other proposed U.S. neutrino collectors ... and planned neutrino research throughout the world." IceCube is an expansion of an existing neutrino observatory called AMANDA.

NSF has also been told to convene a workshop "on all aspects of underground and/or neutrino research." That language, explains Joe Dehmer, head of NSF's physics division, "ties together existing work on IceCube and underground labs, even though they do two quite different types of science." IceCube will search for very high energy particles that originate beyond

the solar system, whereas the Homestake lab is expected to probe lower energy neutrinos that will shed light on the sun and neutrinos themselves.

The Bush Administration also has requested \$2 million in NSF's physics program next year to support research on neutrino detectors. Although Dehmer says that new findings have made the field "a hot topic" for scientists, the top-down allocation troubles physicist John Bahcall of Princeton University in New Jersey. A major backer of both Homestake and IceCube, Bahcall says such priorities shouldn't be dictated by the White House.

Homestake backers see the study as an endorsement of their claim that the underground lab is a cutting-edge research facility on a par with other projects, such as IceCube, that have already won NSF's backing. But IceCube's chief scientist, Francis Halzen of the University of Wisconsin, Madison, says he "welcomes the review, [because] we don't have anything to fear."

For Homestake, however, any studies would be moot if Barrick officials pull the plug—a decision that could come within a month. And even if the company agrees to transfer the land, the project needs the approval of NSF's 24-member governing board. That approval, if granted, would trigger another race, this time pitting the Homestake lab against NSF's growing, and increasingly expensive, list of facilities that it wants to build.

—DAVID MALAKOFF

With reporting by Jeffrey Mervis.