

## Life in Crystal

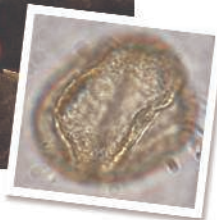
An Italian research team this winter found ancient pollen sealed in the colossal crystals of the Cueva de los Cristales, a cave in a lead and silver mine in northern Mexico. The team, led by mineralogist Paolo Forti of the University of Bologna, Italy, suspected that the selenite crystals, some as long as 11 meters, could contain pollen preserved when they formed several hundred thousand years ago. Now they have extracted 43 pollen grains in samples from two crystals.

The 290-meter-deep cave was discovered in 2000, but its hellish conditions—48°C and 100% humidity—have limited exploration until recently. Scientists with high-tech suits to cool their bodies and dry the air for breathing can now explore the cave for up to an hour at a time.

The pollen, presumably transported into the cave by underground streams, may help scientists reconstruct ancient climate and vegetation cover in the northern region of the Chihuahua desert, says Forti. Palynologist Anna Maria Mercuri of the University of Modena, Italy, identified the pollen as a type of oak found in the southern United States, which suggests that the area was humid forest. Forti's team is now using radiometric dating to get a definitive age for the crystals.



Cave and pollen (inset).



## Body Heat

A Swedish real estate company plans to harness the body heat generated by commuters in Stockholm's main railway station to warm a nearby office building.

"This came up during coffee," says Karl Sundholm, the project leader. "We spent a couple hours doing calculations and found it might be possible." The company, Jernhusen AB, already sucks unneeded heat out of the station through giant ventilators. At a cost of €30,000,

the company says it could build a system that uses the hot air to warm water, which would then be pumped through pipes in a building it plans to construct next door. Sundholm estimates that the 250,000 people who pass through the station each day could provide 5% to 15% of the 13-story building's heating needs. "This is not rocket science," says Sundholm. "It is just one good idea."

Rufus Ford of Sustainable Energy Action, a London nonprofit, says trying to reuse wasted heat is a good idea regardless of its source.

"If it works, the project might be something worth looking into for the London Tube," he says. "It is always warm down there."

## The Jaywalking Peacock

Men use risk-taking as a sort of mating display, even when trying to catch a bus, says a study in this month's

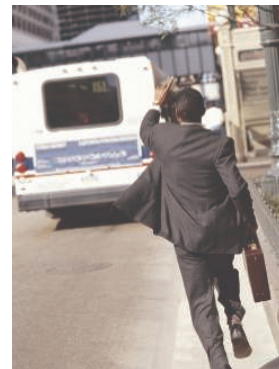
*Evolutionary Psychology*.

During three chilly winter months, a team led by Oxford University psychologist Robin Dunbar watched 524 men and 475 women wait for a 9:40 a.m. bus. Men were more likely to cut it close even though they risked being stranded in the cold by a full bus.

The researchers also observed 1000 street-crossings at a Liverpool crosswalk.

The men made more dangerous crossings if women were looking, says Dunbar, which adds to evidence that mating is never far from the male mind. And although men who were alone or with other men left no time to spare at bus stops, men traveling with women conformed to early feminine arrival times. "It shows how a good woman civilizes the boys," concludes Dunbar. Male bystanders had no discernible effect on females' traffic or bus-stop behavior.

Daniel Fessler, an anthropologist at the University of California, Los Angeles, says he likes how the authors, "by studying everyday behaviors in a natural context," show that male risk-taking permeates even pedestrian activities.



## THE INCREDIBLE AGING INVESTIGATOR

Science policy experts have been wringing their hands for years about the rising age at which scientists get their first National Institutes of Health (NIH) research grant, now averaging 43. But NIH predicts things are going to get even worse.

Mostly in their 30s and 40s in 1980, principal investigators (PIs) now cluster in a bell curve roughly around age 48. By 2020, the curve will shift and flatten out, with a solid band of scientists spread between 42 and 66 and a tail stretching well into the 70s (see graph). NIH Director Elias Zerhouni, who had demographers and actuaries generate the projections, told his advisory committee last month that he blames the baby boom, rising retirement age, and "cultural factors" such as a peer-review system that favors established PIs.

"We do not have a strategic answer; we have a tactical answer," Zerhouni said, which is to target more awards to young investigators. Committee member Thomas Kelly, director of the Sloan-Kettering Institute in New York City, called the projections "absolutely astounding. ... Clearly that's going to have very long term implications for American science."

