On the Meteorite Trail

An intrepid Frenchwoman is skiing across virgin antarctic ice fields, looking for meteorites. On 22 November, Laurence de la Ferrière, 42, caught a lift to the South Pole, from which she set off on her 3000-kilometer trek. Pulling a gear-laden sledge that can deploy a sail for speed, de la Ferrière might just have what it takes to show that a "smaller, cheaper" approach to research actually can work.

In addition to collecting snow samples and feeding sensors with data on her body's adaptation to the cold, de la Ferrière—a mountain guide by trade who was briefed by scientists before her expedition—will keep her eyes peeled for tiny chunks of space rock, up to a centimeter in size, desired by scientists at the University of Paris. On Antarctica's ice sheet, "if you see any stone on the surface, it's likely to be a recently landed meteorite," says Michel Maurette, a meteorite expert at the University of Paris's Orsay campus. Because meteorites found in temperate latitudes are usually weathered and contaminated with earthly microbes by the time they are discovered, the ones de la Ferrière might bring home could be among "the most sterile and least corroded in the world."

De la Ferrière on her way.

After a slow start due to wind conditions, by early December de la Ferrière was reporting by radio that she was covering 50 or more kilometers a day. She's expected to pull up in late January at France's Durmont d'Urville research base on the Adélie Coast.

No Evidence for Human Sperm Wars

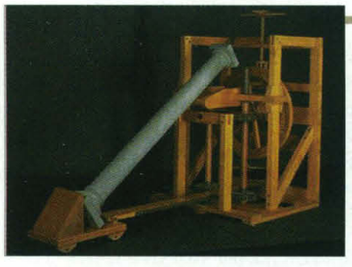
"Make love, not war," people said in the '60s. But for sperm, some scientists counter, love and war may be one and the same. According to the so-called kamikaze sperm hypothesis, sperm from different males sabotage each other in the run for the same egg. New findings, however, cast doubt on this idea, at least for humans.

In many species, females mate with males in such quick succession that sperm from various depositors find themselves vying for the same prize. As a result, chimps, for example, have evolved larger testicles to churn out more sperm; some insects scrape out enemy sperm before depositing their own; and fruit flies poison competitors' spermatozoa.

Based on an increased clumping together—which makes sperm less mobile—and a higher mortality rate in mixed sperm samples, reproductive biologist Robin Baker, formerly of the University of Manchester, proposed a decade ago that some mammals, including humans, manufacture "killer" sperm whose only function is to attack foreign spermatozoa, destroying themselves in the process.

Testing this idea, reproductive biologist Harry Moore and evolutionary ecologist Tim Birkhead of the University of Sheffield in the U.K. mixed sperm samples from 15 men in various combinations and checked for how the cells moved, clumped, or developed abnormal shapes. The team found no excess casualties from any donor or other evidence of warring sperm, they report in the 7 December *Proceedings of the Royal Society*.

The findings are "the nail in the coffin for the kamikaze hypothesis," says Michael Bedford, a reproductive biologist at Cornell University's Weill Medical Center in New York City. But Birkhead thinks it still might apply to other species. When it comes to reproduction, he says, nature has shown us that "almost anything is possible."



Engineering as Art

This machine for raising columns, brainchild of a Sienese engineer, is one of 40 working models based on designs from the Renaissance now on display, along with the artists' blueprints, at the Science Museum in London. Called "The Art of Invention," the exhibit also features machines and drawings of Leonardo da Vinci, and explores Brunelleschi's dome of the cathedral of Florence. The show, which runs through April, will eventually be put on permanent display in Italy.

Are Night Owls Wiser?

Late risers who feel irked by chirpy morning people finally have something to crow about. Sleeping in may go with sharper thinking, according to a study of U.S. Air Force recruits.

Lark or night owl, each of us has a daily period of peak activity and alertness. Psychologists Rich Roberts of the University of Sydney in Australia and Patrick Kyllonen at Educational Testing Service in Princeton, New Jersey, pegged this prime time in 420 Air Force boot camp recruits by asking them questions such as "When would you get up if you were free to plan your day?" The researchers then compared the enlistees' degrees of "morningness" and "eveningness" with their scores on two tests that gauged such abilities as vocabulary, reading, and working memory.

The scores on both tests tended to be a little higher for the night owls, the authors report in the December issue of *Personality and Individual Differences*. Roberts says that the difference might stem from personality traits linked to circadian variation: Evening people tend to be more "open," a trait associated with higher IQ. The study "connects two things you wouldn't think would be connected," says psychologist Seth Roberts (no relation) of the University of California, Berkeley.

Rich Roberts hopes this sort of research will cause employers to take notice. "With society going toward a 24-hour workday, you've got to wonder whether people shouldn't be allowed to go with their natural rhythms," says Roberts, who likes to get up around noon.