## Fine Feathers

The fabulous fossil beds of Liaoning Province in China have already produced a half-dozen kinds of feathered dinosaurs. Now comes an articulated skeleton with the best preserved plumage yet. "The specimen is gorgeous," says ornithologist Rick Prum of the University of Kansas Natural History Museum in Lawrence. The distribution of feathers, he adds, is "amazingly birdlike."

But the 125-million-year-old creature, not yet named, is unquestionably a dinosaur because it has only three main digits on its hands and feet. Other features such as the rigid tail peg it as a dromaeosaur, one of the dinos called theropods thought to be the closest relatives of birds, report Mark Norell and Gao Keqin of the American Museum of Natural History (AMNH) in New York City and colleagues from the National Geological Museum of China in Beijing in the 26 April issue of *Nature*.

**Plum plumage.**

Like birds, the new dinosaur sports feathers with a central shaft and barbs—key features of flight feathers. But the dromaeosaur's feathers were too small to get it off the ground, Prum says. "This means that feathers are no longer synonymous with birds or with flight, but evolved in theropods long before birds or flight." The feathers might have been used for other purposes, such as display or keeping warm.

## Tyler Two

Two high-profile conservation biologists—known for work in the Amazon and New Guinea, respectively—have been awarded this year's prestigious Tyler Prize for Environmental Achievement. Tom Lovejoy of the Smithsonian Institution and the World Bank and Jared Diamond, a professor of physiology at the University of California, Los Angeles, were jointly given the $200,000 prize at a 20 April banquet in Beverly Hills, California.

Diamond, 63, and Lovejoy, 59, are both scientists and authors, and between them they have largely created the field of conservation biology. Diamond, winner of the 1999 U.S. Medal of Science, has furthered the field of community ecology with bird studies in New Guinea. Lovejoy has put tropical forests on the conservation map with work in the Amazon and inventive initiatives such as "debt-for-nature swaps" to enable poor countries to convert foreign debt to nature reserves.

## Astrologer's Degree Raises Scientists' Fears

A chair of astrology at the Sorbonne? That's what Elizabeth Teissier, once the personal astrologer to former President François Mitterrand and now France's best known astrologer, is fighting for—and what some French astronomers fear.

On 7 April, the Sorbonne awarded Teissier a doctorate in sociology for a 900-page thesis on the acceptance of astrology in "postmodern" societies.* In defending her thesis, Teissier argued that there is empirical evidence validating astrology.

The degree will bolster Teissier's demands for the establishment of a chair in astrology at the university, protested astrophysicist Jean Audouze, director of the "Palais de la découverte," and other prominent scientists including physics Nobel laureate Claude Cohen-Tannoudji, in 6 April letters to the university president. Sociologists have also expressed worries, charging in a letter in the 17 April *Le Monde* that the award of a sociology degree to an astrologer is damaging to their field.

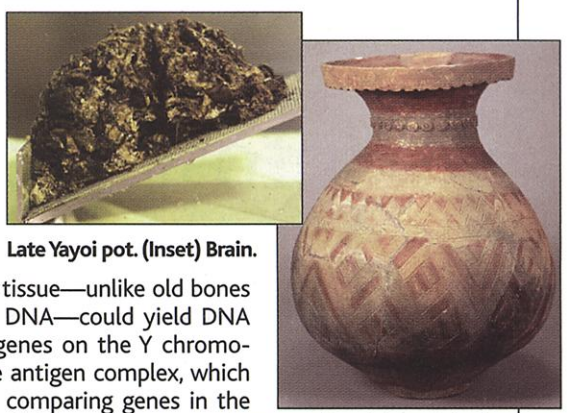
The Sorbonne is on the defensive. "The thesis does not deal with astrology as a subject, but ... as a social fact," says spokesperson Françoise Chailley. She insists an astrology chair at France's most venerable university is out of the question.

* "La situation épistémologique de l'astrologie à travers l'ambivalence fascination/rejet dans les sociétés postmodernes."

## Probing the Brains of Ancient Japanese

Researchers in Japan thrilled the country's anthropologists last week with the news that they have found human brain tissue in three 1800-year-old skulls. This rarely preserved soft tissue could yield genetic information about early Japanese populations.

The three skulls were among 5000 bones from at least 92 people recovered last year from the Aoya-Kamijichi site in Tottori Prefecture, on the Japan Sea coast. Takao Inoue, a professor of anatomy at Tottori University in Yonago, was spooning mud out of one of the skulls when he found white tissue with the consistency of tofu. "I was really surprised," he says. He speculates that cold temperatures and the heavy, moist clay in which the bodies were buried preserved the tissue. The skulls are thought to be from two men and a woman of the Yayoi period, from about 300 B.C. to A.D. 300, which produced pottery well known to art historians. The largest brain fragment weighs about 300 grams.



**Late Yayoi pot. (Inset) Brain.**

The discovery has Japan's anthropological community buzzing. Finding such old, well-preserved soft tissue is a first for Japan, says Keiichi Omoto of St. Andrew's University in Osaka. The tissue—unlike old bones holding less-useful mitochondrial DNA—could yield DNA from the cell nucleus, including genes on the Y chromosome and in the human leukocyte antigen complex, which are used to track populations. By comparing genes in the preserved tissue to those carried by living people, researchers may be able to "shed light on the origins of the Yayoi," says Omoto. There could also be signs of genetic diseases that afflicted the Yayoi, adds Inoue.

Those who want to see the brains for themselves will find them on display at the Tottori Prefectural Museum.