Complete Fossil "Ape-Man" Found

A nearly complete skeleton, including skull, of a 3.5-million-year-old apelike human ancestor has been discovered in the fossil-rich Sterkfontein caves in South Africa. It "might well be a new species," says Ronald Clarke of the University of Witwatersrand in Johannesburg.

Clarke followed a trail of bones leading to the biggest prize, the first complete skull of an australopithecine, the genus thought to have given rise to early humans. In 1994, he spotted some hominid foot bones among a pile of Sterkfontein animal fossils (*Science*, 28 July 1995, p. 521). Then last year, Clarke happened upon some lower leg bone fragments, in a university storage locker, that fit with the foot bones. Convinced that the rest of the skeleton lay in the cave, he assigned two assistants to search in a large, dank area called Silberberg Grotto. The team eventually uncovered more bones and a skull, complete with jaw and teeth, still embedded in rock.

Ape-man skull yet to be dug out.

Clarke says the creature had humanlike heels but apelike big toes, suggesting it was at home both in trees and walking upright. With "massive" cheekbones and evidence for large jaw muscles, the skull doesn't appear to match known examples of the "gracile" variety of *Australopithecus, A. africanus*. The individual, about 120 centimeters tall, may be "an early form of *A. africanus*, or a southern form of *afarensis*"—the species made famous by "Lucy," a 3-million-year-old skeleton found in Ethiopia. Paleomagnetic analysis of the surrounding rock has confirmed earlier dating and puts the bones at 3.22 million to 3.58 million years old. Clarke's report is in the current issue of the *South African Journal of Science*.

Paleoanthropologists are thrilled at the news. "What a wonderful thing to get complete fossils—it's what we all would love to find," says Alan Walker of Pennsylvania State University in University Park. Walker points out that the skeleton can be used to address a host of questions relating to limb proportions, locomotion, the relationship of brain size and tooth size to body size, diet, and lifestyle. Clarke says it will take another year to complete excavation of the find.

S&T Medals

Nine scientists, one heart surgeon, two industrial teams, and two life science companies are the 1998 recipients of the National Medals of Science and Technology, the White House announced last week.

For science, the winners are: **Bruce Ames,** epidemiologist, University of California, Berkeley; **Don Anderson,** geophysicist, California Institute of Technology; **John Bahcall,** astrophysicist, Institute for Advanced Study, Princeton; **John Cahn,** materials scientist, National Institute of Standards and Technology; **Cathleen Morawetz,** Courant Institute of Mathematical Sciences, New York University; **Janet Rowley,** cancer geneticist, University of Chicago; **Eli Ruckenstein,** chemical engineer, State University of New York, Buffalo; **George Whitesides,** chemist, Harvard University; **William Julius Wilson,** sociologist, Harvard University.

The National Medals of Technology, administered by the Department of Commerce, go to: heart transplant surgeon **Denton Cooley,** president, Texas Heart Institute; **Kenneth Thompson** and **Dennis Ritchie,** computer scientists, Lucent Technologies' Bell Labs; **Robert Fraley, Robert Horsch, Ernest Jaworski,** and **Stephen Rogers,** Monsanto Co.; **Biogen Inc.,** of Cambridge, Massachusetts; **Bristol-Myers Squibb Co.,** of New York.

India Blockades Terminator Seeds

In what for now is a symbolic gesture, India has prohibited the import of seeds altered to produce sterile plants. Following widespread farmer protests, the government this month ordered its agricultural border guards to turn back seeds carrying "terminator" genes— booby traps, still being developed, that would prevent improved crop plants from producing viable seeds.

Terminator technology is designed to make farmers help pay for costly advances by preventing them from developing their own seed supplies. Many people oppose the technology, saying it would harm poor farmers (*Science*, 30 October, p. 850). Agbiotech giant Monsanto Co., which is acquiring a company involved in terminator research, denied a press report that it may delay marketing the technology. "Some people tend to think we have plants in the ground," says Monsanto's Jeff Burgau. "Not only don't we own [the technology], but it doesn't even exist yet."

Societies Protest E-mail Crackdown In China

A coalition of scientific and free speech organizations is protesting China's prosecution of a software engineer and a former physics student for their use of e-mail on behalf of the pro-democracy movement in that country.

The campaign, kicked off last week, hopes to rally support for the pair by bombarding Chinese officials with e-mail messages. Lin Hai, 31, a Shanghai software company owner, was tried on 4 December for "inciting the overthrow of state power" by passing along 30,000 Chinese e-mail addresses to a U.S.–based electronic newsletter that reports on the democracy movement. Wang Youcai, 32, who faces a 17 December court date, has a history of activism dating from 1989. He was arrested after trying to register a new political party and was charged, among other things, with e-mailing copies of his organization's founding principles.

"The Chinese government hopes these trials will be a deterrent," says Bobson Wong of the Digital Freedom Network in Hackensack, New Jersey, which is compiling an electronic library of Chinese pro-democracy material (www.dfn.org). "Their message is clear: If you use the Internet, don't talk about democracy."

The coalition includes the American Physical Society, the Association for Computing Machinery, the Committee of Concerned Scientists, and the AAAS (publisher of *Science*). For details, see their Web pages.

CREDIT: *SOUTH AFRICAN JOURNAL OF SCIENCE*