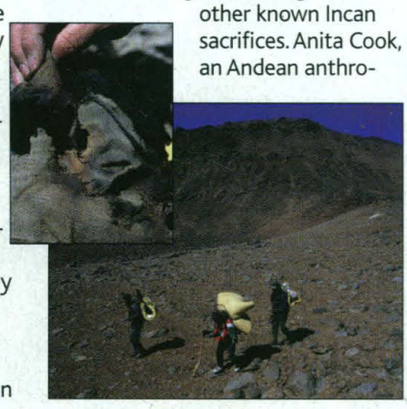
Incan Mummy Trio a Boon for Researchers

The best preserved Incan mummies ever found were rescued from the top of an Argentinian volcano last month. Three Incan children, apparently sacrificed by priests 500 years ago and mummified by the cold, could offer new insights into Incan life and religion before the Spanish conquered them in 1532, scientists say.

A team led by mummy hunter *extraordinaire* Johan Reinhard found the children, two girls and a boy, after they came upon a small llama carved from a seashell. Whereas other mummies unearthed by Reinhard have been desiccated from exposure, these three were so exquisitely preserved by their icy grave that they look as though they might have died only weeks before. "You can still see the light hair on their arms," Reinhard said at a press conference last week in Salta, Argentina, where the bodies are being kept under refrigeration at Salta's Catholic University.

Exactly how the children were slain is unclear. They were not strangled or bludgeoned like other known Incan sacrifices. Anita Cook, an Andean anthropologist at Catholic University of America in Washington, D.C., speculates that they were drugged and buried alive, another typical Inca practice.



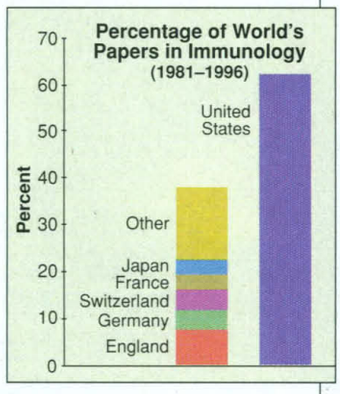
Researchers head home bearing frozen treasure. ***Inset:*** **Girl's face revealed.**

The mummies could offer a bonanza for researchers. X-ray scans show that the children's internal organs are intact, which means they could offer clues about diseases and diet, says Dave Hunt, a skeletal biologist at the Smithsonian Institution in Washington, D.C. Hunt explains that desiccation breaks down cells, so even if a sample is rehydrated for study, physical evidence is distorted or lost. If the mummies have intact red blood cells, adds Hunt, scientists would have a much more complete set of substances to look at than they do with mummies that have dried out. That would enhance their search for genetic relationships with living populations as well as for disease-causing viruses or bacteria.

Buried with the victims was a wealth of artifacts, including colored textiles, moccasins, pottery—some containing food—and statuettes of silver, shell, and gold. Richard Burger, director of Yale's Peabody Museum, says the site's undisturbed state raises the value of the find. "One of the nice things about these mountaintop places is that after the Incas, nobody's been up there since."

Immune Giant

The United States is the world's leader in immunology, churning out 63% of all papers in the field, says a report from the National Academy of Sciences. The panel, headed by Stanford pathologist Irving Weissman, based its report, "International Benchmarking of U.S. Immunology Research," on a survey of researchers, an analysis of reports in five leading journals, and citation data from Philadelphia's Institute for Scientific Information.



Forestry Workers Die in Africa

A Cameroonian forestry professor and two World Wildlife Fund (WWF) staffers were killed on 11 February in Cameroon, West Africa, when their vehicle crashed at night into an abandoned logging truck that had broken down in the middle of the road. The dead are professor Doumbe Manga of the University of Yaoundé, Jos Beerlink of Belgium, who managed the WWF's sustainable forest program in the Congo Basin, and community forestry specialist Caroline Dubois of France.

The three were working to establish sustainable forestry programs and stem widespread illegal logging operations in Cameroon, Africa's largest producer of logs and a big exporter of valuable red mahogany.

The Ridleys Are Back

After a 2-year absence, thousands of endangered olive ridley sea turtles are showing up at the world's largest known nesting site, the Bhitarkanika sanctuary on the east coast of India. Some 221,000 turtles have arrived so far, and officials estimate this year's final tally may top 250,000. Scientists say the return of the ridleys to these beaches—which once attracted more than a half-million turtles a year—can be attributed to a major campaign by government and private groups to protect the critters from fishing nets (*Science*, 18 September 1998, p. 1795).

But the grand turtle revival is proceeding with a gender-bending hitch. The turtles usually arrive in January, but they held off until April this year. Officials speculate that's because females had been deterred by the trawlers but that increased patrolling of the waters finally cleared the way for them. But this delay, combined with unseasonably warm spring temperatures, meant that they have been laying their eggs in beach sands about 12°C warmer than average. And that means the hatchlings will almost all be female.

Like many reptiles, turtles have what's known as temperature-dependent sex determination. For reasons scientists have not yet fully sorted out, warm—in the case of ridleys, that may be anything over about 32°C—means female. So don't expect many male hatchlings this year, says Saroj Kumar Patnaik, wildlife warden for the state of Orissa.

The oversupply of females this year should do little more than make males happy, according to Binod Chandra Choudhury, a turtle expert at the Wildlife Institute of India in Dehra Dun. "Turtles are long-living species, and skewed sex ratios of one year can easily get balanced over time." Choudhury says that if this becomes a long-term pattern because of global warming, the turtles might adapt, as they are polygamous anyway. But he fears that high-temperature hatching could have other effects, such as more deformities in offspring.