

humans in the Americas is amazingly thin,” write Bonnichsen, an archeologist at Oregon State University, in Corvallis, and his co-author. Fewer than 10 “relatively complete, securely dated skeletons more than 8,000 years old have been unearthed in North America”—and some may not be the remains of Native American ancestors. But federal and state officials, bowing to their reading of the 1990 Native American Graves Protection and Repatriation Act, have been handing skeletons over to tribes for reburial.

Bonnichsen and other scientists have sued the federal government to prevent the loss to science of Kennewick Man, a 9,200-year-old skeleton found on federal land in Washington State four years ago. Hardly a month after the discovery, when only preliminary radiocarbon dating had been done, federal officials decided to give the skeleton to a coalition of five local tribes—a move blocked by the lawsuit (in which co-author Schneider is an attorney). It is not clear that Kennewick Man really “belongs to any existing tribe at all,” say Bonnichsen and Schneider.

The possibility that the first Americans were not ancestors of modern-day Native Americans has arisen as a result of the emergence of DNA typing and other new dating technology, along with the unearthing of some very ancient, well-preserved skeletons. Until recently, most scientists strongly favored the so-called Clovis-first theory about the peopling of the New World. By the late 1960s, the authors explain, radiocarbon dating had established that the fluted spear points first found with the remains of mammoths and other animals near Clovis, New Mexico, in 1932 (and later elsewhere)

were between 10,800 and 11,500 years old. Scientists theorized that then, at the end of the most recent Ice Age, a single band of mammoth hunters from Siberia crossed the Bering land bridge into Alaska and began spreading through North America. That led to the diverse array of peoples present when the Vikings and Columbus arrived.

When excavations that began in 1977 at Monte Verde, a site in southern Chile, seemed to show that humans had been present more than 11,500 years ago, many scholars were skeptical. But three years ago, a team of archaeologists, including avowed skeptics, vindicated the claim. Archaeologist Thomas D. Dillehay has uncovered flaked stone tools at the site that are apparently about 33,000 years old. Many other sites that seemed to pre-date Clovis were now acknowledged, as well. “Rather than signaling a distinct migration,” the authors write, the Clovis spear points may simply represent “a technological innovation that took place at that time within groups of people who already lived in the Americas.”

Not only were the Americas peopled earlier than had been thought, but the latest research indicates that they probably were settled more than once and by different groups, say Bonnichsen and Schneider. “The first Americans probably came from many parts of Eurasia.” The early skulls “are quite distinct from the skulls of modern Native Americans,” which may indicate gradual evolutionary change—or else that the skeletons “are unrelated.” But without access to Kennewick Man and other remains, say the authors, scientists are stymied in their efforts to unravel the true history of the first Americans.

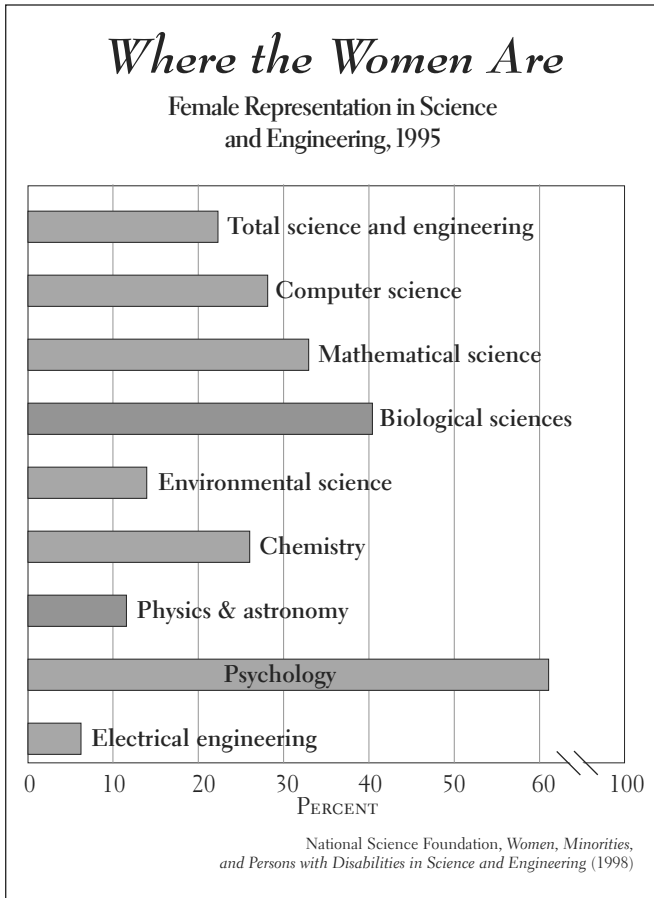
Women in Science

“Parity as a Goal Sparks Bitter Battle” by Constance Holden, in *Science* (July 21, 2000), American Assn. for the Advancement of Science, 1200 New York Ave., N.W., Washington, D.C. 20005.

Though more and more women have opted for scientific careers in recent decades, they still constitute less than one-fourth of America’s 3.3 million scientists and engineers. In physics and engineering, two of the most “hard-core” fields, the proportion is even smaller. Is this really a problem?

Many people committed to the advance-

ment of women in science—including the members of a recent congressionally mandated commission—answer yes. Women are not inherently less capable than men in these fields, they argue, so if America wants to make use of its best scientific minds, it must not neglect the female ones. But lately, reports Holden, a *Science* staff writer, some dissenting



in Atlanta last April, the reason more women don't go into engineering is obvious: "Because they don't want to." But women evidently do want to go into psychology: 60 percent of psychologists are women, according to National Science Foundation figures for 1995. "On average," says Linda Gottfredson, a sociologist at the University of Delaware, Newark, citing studies of vocational preferences, "women are more interested in dealing with people and men with things."

That's essentially what Vanderbilt University researchers David Lubinski and Camilla Benbow have found in their three-decade study of "mathematically precocious" youths. The boys early on inclined toward the "theoretical," while the girls were more people oriented—and these preferences have

played out in their career choices, with the young women less likely to go into science. Mathematically gifted girls tend to outscore comparable boys on tests of verbal abilities, say Benbow and Lubinski, and people with a greater balance of abilities are generally more likely to steer away from science.

None of this research cuts any ice with those who see cultural and educational barriers as the chief cause of the gender gap in science," notes Holden. But Gottfredson and others warn that a heedless quest for parity could lead to injustice, "keep[ing] many men and women out of the work they like best and push[ing] them into work they don't like."

scholars have risen to argue that the relative paucity of women in those fields is mainly a reflection of natural male-female differences, and that efforts to fix this non-problem could have unfortunate consequences.

"The pursuit of sex [parity] in the sciences has turned into an evangelical mission that threatens to undermine science itself," discouraging vigorous exploration of "the reasons for gender differences," contends Judith Kleinfeld, a psychologist at the University of Alaska, Fairbanks.

To Patti Hausman, an independent social scientist who spoke at a women-in-science symposium at the Georgia Institute of Technology

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The Costs of Fish Farming

"Effect of Aquaculture on World Fish Supplies" by Rosamond L. Naylor *et al.*, in *Nature* (June 29, 2000), Porters South, 4 Crinan St., London N1 9XW, UK.

Fish farming (a.k.a. aquaculture) looks at first glance like a sure-fire way to take some pressure off the world's overfished oceans.

Not necessarily, warn Naylor, a senior research scholar at Stanford University's Center for Environmental Science and