

Domesticated animals have enjoyed much more "reproductive success" than they would have in a state of nature. Man, far

from being the oppressor of animals, is upholding "a remarkable evolutionary compact among the species."

Japanese Junk

"What?! Garbage in Japan?" by Phyllis Austin, in *Garbage* (Nov.-Dec. 1991), Old House Journal Corp., 2 Main St., Gloucester, Mass. 01930.

First in autos, first in TVs, and first in the management of solid waste as well. That is the view of a number of environmentalists who have studied Japan and estimate that the island nation recycles about 50 percent of its solid waste. After a visit to Japan, however, journalist Austin reports the reality there is far less rosy.

Second only to the United States as a garbage producer, Japan, she says, is "in a crisis" over what to do with the 4.1 billion tons of waste it generates each year. As Japanese wealth has mounted, so have the junk piles. The newly affluent Japanese jettison "perfectly functional, slightly used" televisions, stereos, bicycles, or furniture as if they were yesterday's newspaper. In just three years, according to a 1990 report from the nation's Ministry of Health and Welfare, waste production increased by more than one-third—to three pounds per person per day.

With 120 million people crammed into a country the size of California, Japan has little landfill space left. The government has resorted to creating garbage "islands" in Tokyo Bay and Osaka Bay. Rural towns are courted, frequently unsuccessfully, by

garbage managers seeking dump sites. "Midnight dumping" by private waste-disposal firms is on the rise. In 1989, there were more than 2,000 arrests for illegal dumping.

Most of what the Japanese cannot recycle, they burn, and the prospects for increased recycling are "negligible, very limited," says Makoto Saito, the ministry's deputy director of waste management. No official estimate of Japan's overall recycling rate is available. But contrary to the extravagant claims made by some U.S. environmentalists, Harold Levenson of the U.S. Congress's Office of Technology Assessment calculates—on the basis of data from the Clean Japan Center, a quasi-governmental agency—that Japan's recycling rate may be as low as 26 percent. That is still nearly twice the U.S. rate—and so would indicate that the United States can do a lot better at recycling. But this modest success, in "a country noted for its dependence on imports of raw materials, its homogeneous culture, and its propensity for citizen cooperation in community activities," suggests that recycling's potential is not as great as some have hoped.

Death Begins At 85?

"How Long Is the Human Life-Span?" by Marcia Barinaga, in *Science* (Nov. 15, 1991), American Assoc. for the Advancement of Science, 1333 H St. N.W., Washington, D.C. 20005.

All of us must die, of course, but what is the natural limit to a human life? Against a chorus of critics, Stanford rheumatologist James Fries has argued that the human body is biologically destined to begin falling apart at about age 85.

"It is frailty, rather than disease," that kills people at very old ages, Fries told Barinaga, a *Science* writer. Despite all the medical progress during the past decade, he points out, the remaining life span for

65-year-olds has been constant: 18.6 years, on average, for women, 14.7 years for men. Moreover, if the curves since 1900 for life expectancy from birth and from age 65 are extrapolated into the future, the lines converge early in the next century at about age 85—suggesting, Fries says, that that is roughly the biological limit to life.

Nonsense, say his critics. The recent plateau in life expectancy after 65, Duke University demographer Kenneth Manton as-