• Women's illnesses receive less attention from researchers than men's do. An inventory by the National Institutes of Health of its total research budget in 1987 found that only 13.5 percent was devoted to studying diseases unique to women. Yes, says Kadar, but only 6.5 percent of the budget was devoted to afflictions unique to men.

• Nearly all heart disease research is conducted on men, with the conclusions blindly generalized to women. A five-year Harvard Medical School study of the effects of aspirin on prevention of cardiovascular disease examined thousands of men, but not one woman. False, says Kadar. The Harvard researchers studied both sexes, almost concurrently. "The results of the men's study were reported . . . in July of 1989 and prompted charges of sexism in medical research. The women's-study results were [published] in July of 1991, and were generally ignored by the nonmedical press." The biggest study of cardiovascular health over time began in Framingham, Massachusetts, in 1948. The researchers started with 2,336 men and 2,873 women, and have been tracking the health of the survivors of both sexes ever since.

• Breast cancer research has been scandalously neglected. If a tumor devastated men on a similar scale, a national Apollo-style program would be launched to cure it. Not so, says Kadar. Lung cancer heads the list of fatal tumors for both sexes, but research on breast

cancer, the second most lethal malignancy in females, gets more funding from the National Cancer Institute (NCI) than lung cancer research or any other tumor research. The second most lethal malignancy in males is also a sexspecific tumor: prostate cancer. Last year about 46,000 women succumbed to breast cancer and 35,000 men to prostate cancer. The NCI spent \$213.7 million on breast cancer research—four times as much as it spent on study of the prostate.

The net result of the real "medical gender gap," Kadar concludes, is "the most important gap of all": Women live, on average, about seven years longer than men.

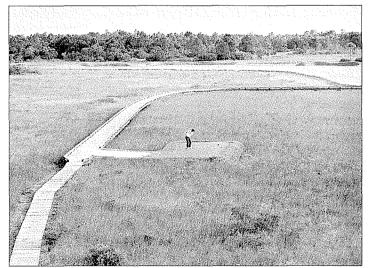
Of Greens and Putting Greens

"Toxic Green: The Trouble with Golf" by Anne E. Platt, in *WorldWatch* (June 1994), 1776 Massachusetts Ave. N.W., Washington, D.C. 20036.

Off to the links for a bit of sport amid the splendors of nature this weekend? Think again. The unnatural attractions "displace people, destroy habitats, pollute surrounding water and air with their heavy concentrations of fertilizer and pesticides, and deplete public water supplies," writes Platt, a researcher at the Worldwatch Institute.

Some 25,000 golf courses now dot the globe, covering an area almost the size of Belgium, and the number is increasing rapidly. Golf course construction is the world's fastest growing type of land development. Courses have sprung up throughout Southeast Asia; in Thailand, one is being built every 10 days. In Japan—whose 12 million golf enthusiasts are the sport's big spenders, paying as much as \$250,000 for membership in a country club—golf course development has resulted in the loss of more than 5,000 hectares (12,355 acres) of forest in a single year.

"From Las Vegas to Zimbabwe, golf courses are absorbing more and more of the scarce wa-



Golfers on this environment-friendly course in West Palm Beach, Florida, can worry about their game without worrying about harming nature.

ter supplies in arid regions," Platt writes. In Tampa, Florida, three municipal golf courses consume about 560,000 gallons a day. In the United States, home to more than half of the world's 50 million golfers, about 10 percent of golf courses are now being irrigated with waste water.

Fertilizers and pesticides are another golf course hazard, Platt notes. According to the U.S.based *Journal of Pesticide Reform*, 750 kilograms (about 1,653 pounds) of pesticides are sprayed on a typical course annually. A 1990 study of 52 courses on Long Island, New York, found that the yearly amount of pesticides applied per acre was about seven times greater than the amount applied to farmland.

The chemicals also pose a threat to human health, Platt says. A 1991 survey of Japanese doctors found that of some 500 patients "with suspected poisoning from agricultural chemicals, 125 were associated with golf courses, 97 as employees." To prevent such problems, one Japanese company announced plans to build 15 "chemical-free" golf courses in Japan. Members will be asked to help weed the greens and do other chores. Elsewhere, operators have experimented with different varieties of grass and biological-control methods.

Platt suggests a return to the roots of golf. When the game was invented in Scotland in the 15th century, she points out, Scottish links (areas of dunes and grass-covered marshes between land and sea), pastures, and commons were used for the playing surface, and players were challenged to overcome the natural lay of the land. For the environment's sake, perhaps modern golfers should be given the same challenge.

ARTS & LETTERS

(Black) Art Is Beautiful

"The Real Thing" by Garry Wills, in *The New York Review of Books* (Aug. 11, 1994), 250 West 57th St., New York, N.Y. 10107.

The superb paintings of Horace Pippin and Jacob Lawrence—now being shown in separate exhibits touring the country—make an important point, notes Wills, the polymathic historian-journalist: "Black art has been created not to a program or racial thesis but by individual genius facing particular choices."

The paintings of Pippin and Lawrence have superficial similarities. Both men preferred small formats, and their subjects were often the same (e.g., John Brown, Abraham Lincoln, black role models, black soldiers). But the mass of their paintings, Wills says, "shows two different sensibilities at work, men of widely differing techniques and tastes, given dramatically different opportunities."

Pippin (1888–1946) was a poorly educated laborer and disabled World War I veteran who had no formal instruction in art and worked in isolation outside Philadelphia. He had little more than a decade of full-time painting before he died of a stroke, but in that time he created haunting images such as the ambitious *John Brown Going to His Hanging* (1942). His rough, vigorous technique was a consequence of the German sniper's bullet that shattered his shoulder in the Argonne Forest. "Holding his right arm in his left, he painted details with a concentrated force," Wills writes.

Lawrence, who is now 76, was taken by his mother to Harlem to live when he was 13. The precocious teenager haunted the neighborhood's libraries and art galleries, received formal training in art, and "moved in a buzz of artists' talk and activity." In 1937, when he was barely 20, he was at work on a brilliant series of 41 panels devoted to the life of Toussaint L'Ouverture (1746-1803), the Haitian revolutionary. Lawrence's major work has been in such symbolic-narrative sequences, including 32 panels devoted to the life of Frederick Douglass, 31 to Harriet Tubman, and 60 to the great migration of blacks from the South. "With his astonishing facility," Wills writes, "Lawrence composes the whole sequence in pencil sketches, the compositions rhythmically interrelated, meant to be seen as parts of a single artifact, like movements