RESOURCES & ENVIRONMENT

Why Sell Off Public Lands?

"The Fallacy of 'Privatization'" by Carlisle Ford Runge, in *The Journal of Contemporary Studies* (Winter 1984), Transaction Periodicals Consortium, Dept. 541, Rutgers University, New Brunswick, N.J. 08903.

The Reagan administration's efforts to "privatize" large tracts of federally owned land by auctioning it off to individuals and corporations strike some critics as a sellout to "special interests."

In fact, says Runge, a University of Minnesota economist, "privatization" is chiefly motivated by a new economic theory that aims to *end* such "deals." But he argues that the sales are misguided anyway; the theory behind them is flawed.

The theory is called the New Resource Economics. Its intellectual father is the late Garrett Hardin, who argued in a seminal 1968 essay called "The Tragedy of the Commons " that publicly owned land will always be abused. He blamed the phenomenon on what economists call "the free-rider problem." Individuals have an incentive to overexploit things that are owned in common. For example, explains Runge, "There is always an incentive on common land to graze another head of cattle, regardless of the impact that this has on range quality [because] the benefits . . . are captured by the individual grazer while the costs of reduced range quality are spread across all those who share the commons."

There are two possible solutions. One is tight government regulation. But the New Resource economists argue that regulatory bureaucracies are costly and cater to organized interest groups. They believe that land (and the minerals and other resources it contains) is best managed by private owners. The reason: If owners abuse the land, they pay all the costs.

But the facts do not seem to support the theory, Runge observes. Government data on 217 million acres of federally owned rangeland and 433 million acres in private hands show that 68 percent of the public land and only 35 percent of the private acreage can be classified as in "fair" condition or better. (The remainder is in "poor" condition.)

Ironically, Runge writes, backers of the New Resource Economics in the U.S. Department of the Interior who favor "privatization" as a way to curb the power of the federal bureaucracy have wound up forcing land sales over the objections of local residents, state and county governments, and even some of the supposed corporate beneficiaries.

A Fuel Cell in Your Future

"The Procrastinator's Power Source" by Eliot Marshall, in *Science* (Apr. 20, 1984), 1515 Massachusetts Ave. N.W., Washington, D.C. 20005.

What generates electricity but creates no significant pollution or noise and is efficient and relatively inexpensive? A fuel cell, says Marshall, a *Science* correspondent.

The fuel cell is a cousin of the battery and, he believes, "an environ-

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mental dream." Within its walls, hydrogen and oxygen react with an electrolyte (such as phosphoric acid) to produce electricity and two waste products, water and carbon dioxide. The hydrogen and oxygen are supplied, in most cases, by natural gas, but methanol or synthetic gas can also be used. The cells are enormously efficient. They capture about 40 percent of the energy in natural gas; conventional gas turbines, by contrast, achieve only 30 percent efficiency.

A fuel cell provided electricity and drinking water for the two U.S. astronauts who flew Gemini V in 1965, but there have been problems bringing the technology down to earth. A small demonstration plant in New York City is already a year late for start up thanks to a plague of technical troubles and what builders call "silly rigors" imposed by nervous local politicians. But a similar plant in Tokyo has been operating intermittently for a year with few problems.

The two companies involved in fuel cell production, Westinghouse and the United Technologies Corporation, believe that they will get all the kinks out by 1990. Since 1976, they have spent—along with participating utilities—some $250 million in fuel cell research; the federal government has invested a like amount.

Fuel cells will never take the place of coal, oil, or nuclear power. The commercial cells planned for the 1990s will have a capacity of only about 7.5 megawatts: An average coal-fired generator supplies 100 times more power. Construction costs per kilowatt ($850) are about the same for both kinds of generators. But with demand for electricity growing very slowly nationwide, Marshall says, fuel cells could be very valuable where small boosts in output are needed—unless they fail to shake the "lemon" label earned by the New York test plant.

ARTS & LETTERS

Photographing U.S. History

"Brady's Portraits" by Alan Trachtenberg, in *The Yale Review* (Winter 1984), Yale University Press, 92A Yale Station, New Haven, Conn. 06520.

"When the history of American photography comes to be written," declared *Harper's Weekly* in 1863, "Brady, more than any other man, will be entitled to rank as its Father."

The magazine was referring, of course, to Mathew B. Brady, the famed Civil War era photographer. Brady was "neither an innovator nor a great artist" observes Trachtenberg, a Yale English teacher, but he deserved the *Harper's* accolade. Skill with a camera, sheer energy, and a dash of entrepreneurship helped him, but Trachtenberg believes that the key to Brady's success was his conception of the photographic portrait as "a vehicle of certain ideas and feelings important to the culture of his age."

Born in upstate New York in 1823 or 1824, Brady opened his first da-