

Clear cutting and conservation



Forest logging operation: Timber production rated over conservation values.

Current concern over the environment grew partly out of the classical conservation philosophies of Theodore Roosevelt and Gifford Pinchot. Today's environmentalism includes a broad scope of concerns, ranging from pesticide pollution of the oceans to high-rise buildings in suburbs. But the original Roosevelt-Pinchot emphasis was on the nation's forests. Pinchot became the first head of the Forest Service, which was set up in 1905 under the Department of Agriculture at the same time the national forest system, now comprising 187 million acres, was established.

Roosevelt and Pinchot had no intention of making virgin preserves out of the forests; rather they believed in a policy of sustaining yield, management of the forests to make them an ever-renewing resource in a variety of areas besides simply timber production. Classical conservation aimed at both economic development and respect for the integrity of natural processes, as opposed to the pure preservation advocated today by such groups as the Sierra Club.

But the Forest Service has since grown into a complex and often rigid bureaucracy. And although the exploitive 19th century practices have largely been abandoned, a recent report from an interdisciplinary committee at the University of Montana makes it clear that the dominant emphasis in the Forest Service is toward lumber production to the exclusion of delicate ecological and social concerns. And the Forest Service itself has cautiously conceded that the committee, headed by Dean Arnold Bolle of the UM School of Forestry, is correct in many of the points it makes. The suggestion, both in the UM report and the Forest Service's apologetics, is that the agency has be-

come a partly unwilling captive of economic interests.

The report, first requested by Sen. Lee Metcalf (D-Mont.) and released late in November, is on a single forest, the Bitterroot National Forest in southwestern Montana. But, says the report, "The Bitterroot . . . is really representative of a large part of the Rocky Mountain West" where most of the national forests are located.

Singled out for particular criticism is the practice of clear cutting, commercial cutting of all the trees in wide swaths through a forest. This practice, says the report, is highly destructive to delicate ecological balances and esthetic considerations. "There is a great deal of waste material left on the ground after clear cutting. Brush is scattered throughout the area. The soil has been scarified by bulldozers, there are great windrows of material piled up." And the effects are not only on the immediate local ecology. The Federal Water Quality Administration reports that this practice can create soil erosion and consequent pollution of waterways all the way to estuaries on the coasts.

The Forest Service's single-minded devotion to timber production is clear, says the committee, in the short shrift it gave to wildlife values in an earlier report on the Bitterroot Forest by an in-house task force. The task force report discusses the impact of forest management only on the elk, a primary game animal in the West. "There are other big game species besides elk, however, and other game species besides big game, and other wildlife than those species sought by hunters," says the committee. The emphasis on the elk once again is evidence of the Forest Service's preoccupation with the most obviously exploitable resource "with little feeling for the equally

important, if less exploitable, members of the forest ecosystem."

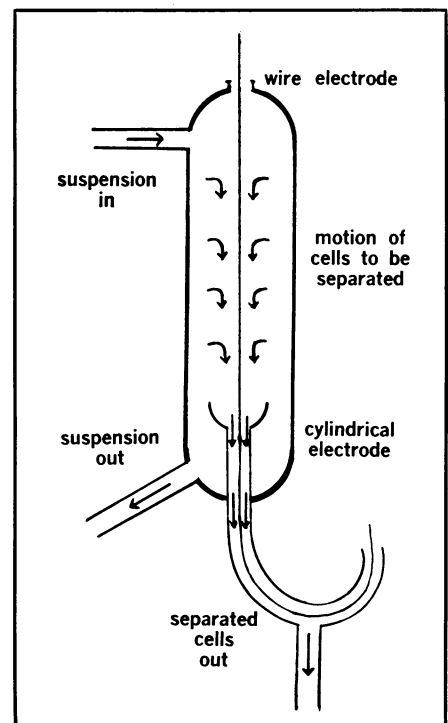
Although the committee does not explicitly say that the Forest Service practices are directly in violation of the agency's ostensible philosophy of a sustained yield, this is a clear implication in the section on forest economics. Current practices, says the report, make it economically impossible ever to recover even the timber values lost through clear cutting, let alone the wildlife, esthetic and recreational values.

The problem, in part, says the committee, is created by a top-heavy and inflexible bureaucracy, which it suggests is unresponsive to public needs and easily manipulated by special interests who want to make a short-term killing.

In the light of current environmental concerns, says the committee, such approaches are "completely out of step with the interests and desires of the American people." □

PHYSICISTS IN BIOLOGY

New basic laws



Pohl/Armistead

Suggested cell-separation apparatus.

The word interdisciplinary has become a cliché among scientists in recent years. Nevertheless it represents a fact: The partitions between specialist compartments are breaking down. Scientists of very different backgrounds collaborate on joint endeavors.

A fundamental example of the interdisciplinary trend is the growing interest of physicists in biological problems. So great has this trend become that at the meeting of the American Physical