

lived for 10 years in buildings where they were exposed to airborne asbestos has so far turned up no increase in diseases.

At one time, the authors say, asbestos workers were routinely exposed to chrysotile at concentrations of 100 fibers per cubic centimeter. Today, at the federal standard of 0.2 fibers, even asbestos mines and mills pose no threat to health. And in

buildings with exposed asbestos, the concentration is only one percent of the workplace level. In the future, the authors argue, federal standards must distinguish between the hazards of the two asbestos families, as European regulations already do. The last thing we need is to fill the air with cries of panic—and the fibers from asbestos hastily stripped from schools.

Nature's Medicine Chest

"Prospecting for Nature's Chemical Riches" by Thomas Eisner, in *Issues in Science and Technology* (Winter 1989-90), 2101 Constitution Ave. N.W., Washington, D.C. 20418.

Even optimists now concede that plant and animal extinctions are going to occur at an alarming pace well into the next century. "We have yet to comprehend what it is we lose when species disappear," warns Eisner, a Cornell biologist. In the area of medicinal chemistry alone, he says, the implications are staggering.

Overall, nearly one quarter of all medical prescriptions in the United States "are for formulations based on plant or microbial products, or on derivatives or synthetic versions thereof."

Nature continues to provide new medicines. Recent examples include "the anti-cancer agent vincristine (isolated from the Madagascar periwinkle, *Catharanthus roseus*); the immunosuppressant cyclosporin (from a Norwegian fungus); and ivermectin (from a Japanese mold), which kills parasitic worms." The need for such drugs is not insignificant: After only five

years, annual sales of cyclosporin are nearing \$100 million.

Scientists can only guess how many useful drugs remain to be discovered. Consider flowering plants, which occupy only a tiny niche of the natural world. They are the sole source of a major group of biological chemicals called alkaloids. Of the 250,000 flowering plant species in existence, only two percent have been examined for alkaloids. But these have yielded hundreds of anesthetics, analgesics, narcotics, vasoconstrictors, and other drugs.

Conservation is obviously a top priority. But, noting that most chemical discoveries are the result of serendipity, Eisner argues for a crash program of "chemical prospecting" focused on the developing nations of the tropics, where the great majority of extinctions are occurring. The opportunities, he says, are boundless—and, perhaps, fleeting.

ARTS & LETTERS

The Subversive Art

"Photography and the Mirror of Art" by Martin Jay, in *Salmagundi* (Fall 1989), Skidmore College, Saratoga Springs, N.Y. 12866.

When the painter Paul Delaroche heard of Louis Jacques Mandé Daguerre's first successes in photography in 1839, he wailed that "from this day on, painting is dead." That turned out to be more than a bit premature. A full century and a half after its invention, photography has achieved acceptance as a legitimate art form. And

now, writes Jay, a Berkeley historian, it is beginning to subvert the very notion of "legitimate" art.

Artists and critics did not even begin to take the new medium seriously until its defenders elaborated the arguments put forth by the photographer Alfred Stieglitz in *Camera Work* magazine (1903-17).