

PERC



REPORTS

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LEGISLATING IDEALS

By David Schoenbrod

Around 1970, the government began to go beyond enforcing society's norms and began imposing intellectually generated ideals on society. As a graduate of Yale Law School in 1968, I was a part of this process. My contemporaries and I were instrumental in helping to launch the Environmental Protection Agency, as well as the Natural Resources Defense Council and other "public interest" environmental groups. We felt fully entitled to remake society.

We wanted new kinds of statutes that would force agencies to bend society to our ideals on a timetable. One of the first of the kind of statutes we wanted was the 1970 Clean Air Act. It became the prototype for many statutes regulating both the environment and other fields.

Under the Clean Air Act, the EPA was not left to regulate in the public interest but rather was mandated to achieve an ideal—to protect the health of all Americans from all harmful pollutants by the end of the 1970s without regard to cost. As a young attorney at the Natural Resources Defense Council, I saw my role as forcing EPA to live up to this ideal.

A quarter century of experience, however, has taught me that in enacting ideals, Congress does only half the job of making law. It does the popular part (creating rights such as the right to clean air) and

We wanted new kinds of statutes that would force agencies to bend society to our ideals on a timetable. One of the first of this kind of statute was the 1970 Clean Air Act.



shuns the unpopular part (imposing corresponding duties such as limiting emissions on specific kinds of plants) (Schoenbrod 1993, 58–59).

In doing this, Congress disengages itself from the interests that must give way if the ideals are to be realized. An example was New York State's 1973 plan to implement the ideal of the Clean Air Act in New York City. One strategy was to impose tolls on the bridges over the Harlem and East Rivers. The tolls would produce the money needed to improve mass transit and thereby encourage commuters to leave their cars at home.

When a new governor and a new mayor refused to implement the plan, my colleagues and I at the Natural Resources Defense Council got a court order requiring implementation. In protest, all the members of the Brooklyn congressional delegation marched across the Brooklyn Bridge and vowed to

amend the act to get rid of the tolls.

I rushed down to Washington to defend the Clean Air Act, but discovered that only two members of the New York City delegation would even consider opposing the amendment. One represented a district in which most of the voters already rode transit rather than cars, anyway. The other said that he supported tolls on bridges—except on those bridges leading to his district. The legislators from Brooklyn were for a right to clean

LEGISLATING IDEALS

air, but they were opposed to imposing duties to deliver the right—as if there can be rights without duties. A private person who behaved that way would be diagnosed as schizophrenic.

By legislating ideals, Congress can evade the procedural checks that would keep it from acting rashly. However, when efforts to temper these rash promises by new legislation are made, procedural checks stop any change. Besides, once Congress legislates an ideal, interest groups grow up around it and defend it. A legislated ideal is almost as hard to take back as a slap in the face.

As my generation of petulant young elitists came to understand the ways of power, we learned the trick of using the magic wand of idealism to obtain power. The trick was to put off the hard choices to another time or place. Thus, the 1970 Clean Air Act could be enacted because neither clean air nor the laws needed to produce it would have to be produced now. The deadline was, instead, 1977.

When 1977 arrived with the ideal unachieved, the EPA theoretically had the power to shut down factories and close gas stations on a massive scale. But the EPA was not about to exercise that power. Why? If it did, it would lose all its power. Instead, it deigned to allow society more time if the agency's power was increased.

So, in the Clean Air Act of 1977, the EPA and its allies allowed the 1977 deadline to be eased to 1982 for some pollutants and 1987 for others, in exchange for vast increases in the EPA's power. After the 1977 and 1982 deadlines proved impossible, the EPA allowed the deadlines to be eased out as far as 2010 in exchange for still greater increases in power. The agency will decide on a case-by-case basis whether to give states and cities more time to meet the goal. Thus, the EPA and the president will have tremendous leverage on governors and mayors.

The growth in the EPA's power can be roughly gauged by the growth in length of the Clean Air Act—from 8 double-spaced typed pages in 1965, to 76 pages in 1970, to 272 pages in 1977, to 718 pages in 1990. Yet the vast increases in federal government power typified by the Clean Air Act can't be justified by good results. The air people breathe is much cleaner today not because of the ideal handed down from Washington, but because society wanted it so.

State and local governments had responded to the demands of voters for cleaner air long before the federal government got involved (Goklany 1997, 47). At the federal level, the most important step that Congress took in 1970 was to enact a rule of conduct, not some abstract ideal, to cut emissions from new vehicles. Public support for cleaner air would have brought many further steps at all levels of government. But instead of enacting other concrete laws in response to popular demand, Congress enacted its grand ideal.

You might think that people would worry less about pollution now, since a national EPA is standing guard and Americans have paid \$1,850 per household annually throughout most of the 1990s to achieve clean air (Schoenbrod 1998, 12). But according to opinion polls, the public is more worried about the environment now than it was in the 1970s (Kempton, Baster, Hartley 1995, 4). This is because the EPA is in the business of getting the public to worry about our "failure" to attain unattainable ideals. (Melnick 1984, 123).

Indeed, 68 per cent of the public tell pollsters that most other people don't worry enough about the environment (Darnay 1992, 844). Here is the ultimate irony. The voters who succeeded in getting government to do

something substantial about pollution have been convinced by that government that people like themselves are too dumb to care about their own health. Government by ideal creates a state—literally, a state of mind—in which we feel we must be put in the hands of nurses. By sowing self-doubt, the state increases its power.

Our legal system used to discourage anti-social activity quite differently. As a rough generality, if you acted wrongly but caused no harm, you paid token damages or nothing. No harm, no foul. If you did cause damage, you paid for it, but were not punished unless you did something society judged awful. So long as you avoided awful conduct, you could act as you wished but were responsible for the consequences.

In contrast, the Clean Air Act, and the many other statutes modeled on it, allow a federal agency to run major segments of civil society on quasi-military lines running from Congress down through the EPA to states and ultimately the regulated entities. Operating this chain of command entails compiling a great mountain of statutes, regulations, guidance documents, plans, permits, and reports.

The point of this system is power, not environ-

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obtaining power
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mental quality. This became clear to state environmental commissioners a few years ago. Prior to the 1996 election, the commissioners persuaded EPA Administrator Carol Browner to let them negotiate with agency staff to “reinvent government.” Four months of hard bargaining produced a 16-page agreement allowing the states to deviate from rigid federal requirements when the EPA agrees that such innovations would save money and not harm environmental quality.

Once the election was over, the EPA official in charge of the talks killed the deal. In a “Dear Reinvention Ombudspersons” letter, Deputy Administrator Fred Hansen wrote that the states would be allowed to try only “minor, and I stress minor, changes.” Moreover, the EPA would decide how the state-generated savings would be spent.

The EPA won’t loosen its grip on state and local government because environmental policy might go the way of welfare—state experiments could lead to a wholesale devolution of power. Our air and water would be just as clean but the EPA would not be in the driver’s seat.

In sum, legislation by ideal is unkind to people and their society.

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David Schoenbrod is a professor at New York Law School. This excerpt is from his essay in The Common Law and the Environment, edited by Roger E. Meiners and Andrew P. Morriss, forthcoming.

EMOTIONALLY FULFILLING, SCIENTIFICALLY SOUND

WHY I AM AN ORGANIC FARMER

By Robert Quinn

I was not born an organic farmer or raised or educated as one. One step at a time, however, I converted my farm from conventional agriculture to the completely different system known as organic farming.

Organic farming has often been misunderstood and misrepresented, and it has been defined in many ways. Over the years the term has come to mean a system of agricultural production that relies on achieving good health in soils and plants through soil-building programs and crop rotations, and good health for animals through good nutrition and stress reduction. Generally, there is

no reliance on synthetic fertilizers, herbicides, pesticides, hormones, antibodies, genetically modified organisms, or irradiation.

Although vaccines are allowed, most other inputs to the system must be from naturally occurring substances such as nitrogen from green manure or compost and phosphate from ground rock. Livestock must be given organically grown feed. The system has been defined by a combination of the demands and expectations of the consumers and the goals and desires of the organic producers. The system must be sustainable, not only

ORGANIC FARMING

providing economic stability to the farm or ranch family and surrounding community but also ensuring the productivity and vitality of the soils and the plants and animals they nourish.

I am the third generation of Quinns on our farm. My grandfather started renting part of this farm near Big Sandy, Montana, in 1920 after returning from World War I. He arrived as many homesteaders were leaving, unable to survive on small acreages and low rainfall. My father returned to the farm when my grandfather retired in 1948. I returned with my family in 1978, as my father was elected president of the Montana Farm Bureau Federation, which took most of his time.

At that time we farmed approximately 2,400 acres—an average-size farm in Montana. Half was devoted to small grain crops and half to pasture for cattle. We grew winter wheat, spring wheat, barley, and some oat hay for the cattle. One year in three we summer-fallowed—that is, we planted no crop and only cultivated to control weeds so that we could conserve moisture for the next crop. During the other (non-summer-fallow) years, we grew one crop after another and burned the stubble in the spring to prepare for seeding. We relied heavily upon fertilizer and herbicides and in most years had good crops. My father worked closely with the university agriculture experiment station. He was always trying new things to improve the farm's productivity.

When I returned, there was not enough income to support two families, and another source of income was needed. An opportunity arose in 1983 to market high-quality grain directly to whole-grain bakeries in California. By 1985, we had added a stone flour mill to our operation in Fort Benton, about fifty miles from our farm. We were known as Montana Flour & Grains. We soon were marketing not only our own grain but

the grain from many other growers in the area.

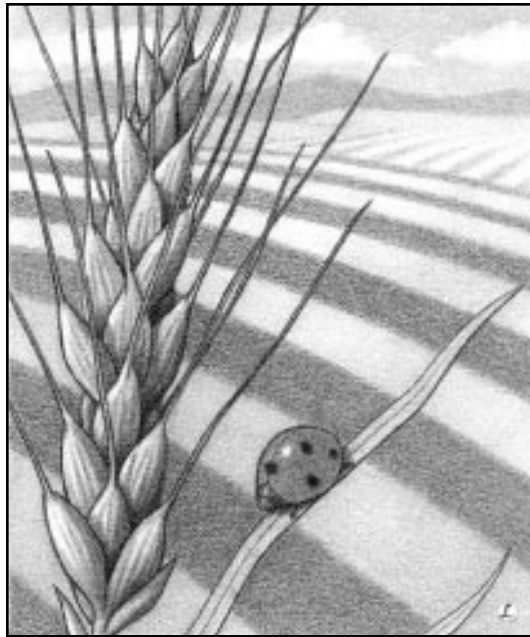
In 1984 one of our customers asked if we could supply organic wheat. I found four farmers in Montana claiming to have organic grain for sale. Two were only organic by neglect—they had stopped using fertilizers and herbicides but had not incorporated any soil-building component into their operation. I was interested in what the two more serious growers had to say.

I had heard of organic farming during my studies at the University of California at Davis nearly ten years earlier but was very skeptical. After

all, I was working on a Ph.D. in plant biochemistry with a background in farming and degrees in botany and plant pathology. I had been taught, and believed strongly, that a plant cannot tell the difference between a molecule of nitrogen from a commercial fertilizer such as ammonium nitrate or one from a pile of barnyard manure. I have since learned that there is a lot more to soil health and plant nutrition than just providing the plant an abundance of nitrogen and phosphate and a few other essential minerals.

Despite my early skepticism, I was intrigued with the notion of growing my own fertilizer. Meeting farmers from other parts of the country who had been farming organically for five to ten years further encouraged me. They told me the changes they had seen on their farms. Soil quality and tilth (physical structure of the soil) had improved. Yields had stabilized to pre-organic levels. Water absorption of the soil was greatly improved. Weed and insect infestations decreased.

I was eager to try such a method but my father felt such a big change was too risky. After attending a health food show in California and seeing thousands of people looking for organic products, however, he became convinced that there was a significant demand. In 1986 we tried an experiment on twenty acres (about 1% of our crop ground at the time). It was a great success and I was encouraged to add more acres to this new method of farming. By the end of the second year, I increased the



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organic acres to one quarter of the farm. The year after that I went cold turkey on the rest of the farm. I would never encourage such a crash program; a five- to six-year conversion period is much better as it can be done with little loss in productivity or profitability.

After thirteen years' experience, there are three main reasons why I am an organic farmer. I find organic farming: 1) emotionally fulfilling, 2) scientifically sound, and 3) financially rewarding.

Organic farming has made farming fun for me again. It is fun because each year I have so many different choices of cash crops, soil-building crops, and pest management programs. It is interesting to see the farm evolve in response to the different management schemes. Residues from the previous year's chemical applications do not limit my choice of crops. I have seen the tilth of my soil improve while wind and water erosion decreased. Beneficial insects such as ladybugs have increased, as have bird populations. The leaves of trees in my shelterbelts are no longer curling from herbicide drift.

Best of all, I sometimes receive letters and words of appreciation from my customers. I shall never forget the first time a lady came up to me at a food show, warmly shook my hand, and, looking me straight in the eye, said, "Thank you, thank you for growing the food my family eats." As a grain grower, I had never received that kind of thanks before. The local elevator never treated me that way.

Second, I find organic agriculture to be scientifically sound. It is based on the oldest cycles and balances observed in nature. If we look at native prairies, forests, or oceans, we see four principles: interdependency, diversity, balance, and cycles. Organic farming mimics those principles. As organic farmers, we realize that everything is interdependent and therefore everything we do affects something else. This makes long-term planning and close observation vital. We mimic the diversity in nature with the use of rotations, which break up cycles of disease, weeds, and pests. We try new crops, and we have even introduced a new grain to the health-food market, an ancient Egyptian durum that we market under the trade name Kamut. We balance what we take from the soil (in terms of harvested crops) with what we give to the soil (through legumes such as alfalfa, clover, or peas). We focus on nurturing the soil rather than just feeding plants with highly soluble fertilizers. We study cycles, particularly of pests, so we can learn where the pests' weak points lie and how they might be managed properly. This process has helped me become a better farmer.

Each year I approach the coming season with great anticipation because it will be another opportunity to try something new and learn something new. My farm is my laboratory and my garden.

Third, I have found organic agriculture to be financially rewarding. The general principle is to reduce the cost of your inputs, increase the value of your outputs, and enjoy the increase in your bottom line. Because we have no big investments in chemicals in the spring, and because we market at relatively high prices throughout the year, we have eliminated our need for an operating loan from the bank. In the past, during my high-chemical-input years, there was never a question of whether we needed an operating loan; the question was whether it could be completely paid off before it would have to be renewed the next year.

During the mid-1980s when government payments to grain farmers were perhaps at their highest level, we used nearly our entire government check to pay for the chemical inputs on our farm. I wonder how farmers will continue to afford such high inputs when government payments disappear, as they are now set to do in a few years.

I am often asked about our yields. I have read several articles claiming that we would all starve if the country was all organic, or we would have to cultivate all the wilderness and wildlife areas just to keep up with the demand for food. That is not the experience that I have had on my farm. In very wet years, we do see significantly lower yields compared to our neighbors because of their high inputs. In an average year, however, our yields are about the same as our neighbors, and in very dry years we normally harvest more. Over the long run, after a three- or four-year transition period, there is very little difference in overall yields.

Organic farming is not a panacea, the solution to all of agriculture's problems. It has its own frustrations and challenges. It certainly takes more management over the long run and at the beginning a certain amount of experimentation is required. The rewards to me, however, far outweigh the difficulties. I am glad and thankful that I was introduced to organic farming and am able to pursue it profitably.

At a time when many discourage their children from considering careers in agriculture, I do not hesitate to encourage the next generation to consider organic farming. I see its future as bright.

Robert Quinn, who has a Ph.D. in plant biochemistry from the University of California at Davis, operates an organic farm southeast of Big Sandy, Montana. He is the founder and president of Montana Flour & Grains located in Fort Benton, Montana.

WHAT A TEACHER WANTS

Kathryn Ratté

In one of my favorite *Calvin and Hobbes* vignettes, a dejected Calvin is standing at a booth in his yard where he is trying to sell swift kicks in the rear for a dollar. When Hobbes the tiger asks how business is going, a nonplused Calvin replies that it's terrible, adding indignantly, "I don't understand it. Everyone I know needs what I'm selling!"

As a teacher, I receive reams of teaching materials on the environment. Far too often, these materials adopt Calvin's tone—the tone of a salesman who already knows what "everyone needs." But I'm not a salesman; I'm a parent and a teacher. What I really want in the classroom are lessons that ask students to consider the issues; decide for themselves whether an "issue" is a genuine problem; gauge the magnitude of the problem; and evaluate alternative courses of action.

Yes, I want my students to care about the environment, but I want them to go beyond caring to consider whether they are willing to bear the cost of having the environment they care about. Few teaching materials on the environment meet my criteria. To fill the void, I propose analyzing environmental problems and solutions through economic reasoning.

We live in a world of limits, but within those limits we have, as individuals, extraordinary power. The first principle of economic reasoning—I choose—is a powerful one. The implications of internalizing and accepting "I choose" are both personal and social, and they have a direct bearing on education in general and environmental education in particular.

A fundamental aspect of choice is opportunity cost: Choosing one thing means giving up another. When a choice has been narrowed to the final two alternatives, one must be forgone. Paradoxically, recognition of this reality is liberating rather than frustrating. Choosing

means giving up what is less important in favor of what is more important. At the very least, careful choosing enables me to refuse the worst—no matter how rotten the alternatives that face me. For those who feel powerless, it can be a first step in building self-confidence.

A student's recognition of his or her own power to choose is also a first step in affirming the ability and the right of others to make choices. Students learn that people act in their self-interest, whether that interest be generous or miserly, selfless or greedy, and also that people usually have good reasons for the choices they make. Students learn that just as their choices are valid, other people's choices have merit in their situations and circumstances. Others' reasons

for choosing—their values, beliefs, and perceptions—are not inherently inferior to our own.

Understanding scarcity, choice, and cost also mandates consideration of consequences. We can help students learn that not only do our personal decisions have consequences but so do decisions we make as members of societies and governments, including those that affect our environment.

For many of us, teaching about the environment is daunting. The Earth is our home; we feel for it more than we think about it, and it is our feelings—fear on the one hand and self-righteous indignation on the other—that threaten the classroom journey into environmental studies. The Scylla of environmental education is a moral certitude that undermines students' ability to assess the complexity of environmental problems, leading them to dismiss them as the legacy of bad people. The Charybdis is the possibility that they may be so overwhelmed by the magnitude of environmental problems that they abandon hope for the future.

Economic reasoning is an alternative to the scare-

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economic reasoning.

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them-silly or the you-can-save-the-Earth approaches. Economic reasoning helps students avoid feelings of powerlessness and restrains the tendency to blame problems on bad people or insufficient willingness to spend money. It allows teachers to incorporate the best science in defining the problems, and it allows us to look at solutions with our heads as well as our hearts.

I don't want exercises in programmed learning; I want experiential activities, with supplemental background readings and data, in which students must process information and observations and draw and support conclusions.

Give me a case study of an identifiable Amazon basin family making the choice between slash-and-burn agriculture and letting the rainforest remain as it is. Or present an interview with a Brazilian rancher deciding between clearing timber for grazing land and letting the rainforest remain. Give me the history of an African village where crops are destroyed by elephants and poachers can be put to death. I want to be able to ask my students:

"Tell me about scarcity here. What are the limits, the constraints faced by these people?"

"What alternatives do they (not you!) have? When you narrow their choices to the best two, what are they?"

"What benefits do they give up by choosing one alternative over the other?"

In the process of considering these questions in their specific context, students learn that the benefits and costs of choices are experienced by real people and that costs and benefits are rarely shared equally. It's important to ask, "Who benefits and how much?" and "Who bears the cost and how?" Only after we've answered these questions can we consider whether the benefits are worth the costs.

Students can also learn from real-world examples that environmental decisions aren't fundamentally different from the personal decisions they make daily. Most of our choices aren't black and white, between the clearly good and the clearly bad. They're not usually of the "Do you want a treat or a punch in the nose?" variety but, rather, of the "Do you want an ice cream cone or a candy bar?" kind. The same is true of environmental decisions.

Nor are environmental decisions "all-or-nothing" decisions. Economic reasoning recognizes the key importance of the margin, the additional, the next unit. A family's choice is less likely to be "Should we buy a car or have no car?" than it is "Should we spend a little more money on the car or a little less?"

Similarly, the question is not "Should we have clean air or dirty air?" but, rather, "Should we reduce air pollution an additional 2 percent or leave it as it is?" And the appropriate answer to this question is another series of questions:

"What are the costs and benefits of the 2 percent reduction?"

"Who bears the costs?"

"Who reaps the benefits?"

"Could the money to accomplish the goal be used for something else?"

"What are the costs and benefits of the something else—and who benefits or bears the costs?"

In our zeal to protect the environment we love, we have to resist the tendency to portray environmental solutions as if they had no cost, or as if the costs aren't worth considering, or as if someone much wiser than we are has already dismissed them as negligible or unworthy of consideration.

Economic reasoning also reminds us of what the youngest child on the playground knows—the fact that the rules of the game make a difference to the players. Suppose governments subsidize the clearing of rainforest. Will eating Rainforest Crunch ice cream and wearing "Save the Rainforest" T-shirts stop it? Suppose the government subsidizes the delivery of low-priced water to arid farmland in southern California. Will letters to the editor of the local paper cause the rice farmers to close the sluice gates? Common sense tells us no.

Rather, students can learn that the systems of rules that are in place may put people in the position of choosing between their own well-being (or that of their families) and some larger environmental goals. Students can begin to understand and even anticipate the dilemmas that legislation and rules—even if they're well intentioned—can create for individuals. As students learn to identify the incentives that are affecting people's choices, they gain a powerful tool for understanding human behavior. They also have a basis for criticizing systems that undermine environmental goals and for constructing systems that work.

While it's true that we all may need a swift kick from time to time to get our attention, the reality is that our students are already paying attention. Concern for environmental quality is deep and widespread. Given the intensity of student interest, environmental education can be an exceptional vehicle for developing skills of analysis and evaluation. When we use economic reasoning as a foundation, we elevate study of these issues above the level of a rhetorical exercise in trading opinions to a disciplined examination of cause and effect. And we empower students.

Kathryn Ratté is a high school teacher with the Jefferson County District, Golden, Colorado. This excerpt is taken from A Blueprint for Environmental Education, edited by Jane S. Shaw, which PERC has just published (see page 16).

GREENER PASTURES

PRIVATE INITIATIVES

By Linda E. Platts

SOAKING UP THE SUN

Sun and shade are working together at the International Airport in Sacramento. The largest free-standing solarport in the country has a photovoltaic system that tracks the sun across the sky, providing electricity to the power grid and cool parking spaces to airport visitors.

The solarport measures 393 feet long, 30 feet wide and 14 feet high. Beneath the cantilevered structure is shaded parking space for 75 cars, as well as a recharging station that services four electric vehicles. Up top, the photovoltaic cells collect enough sunlight not only to recharge cars, but to power 50 homes. The electricity is added to the local power grid of the Sacramento Municipal Utility District.

According to the utility, the solarport is expected to save the equivalent of 825,000 gallons of oil, 1.1 billion cubic feet of natural gas, or 10 million pounds of coal. Furthermore, atmospheric pollutants could decrease by 1.7 million pounds of carbon dioxide emissions.

As deregulation gains momentum and utilities market their "green power," multipurpose photovoltaic systems such as the solarport may persuade some consumers to jump aboard a new power provider.

—*The Green Business Letter*

ENGINEERING NATURE

When employees of a Toronto business complained of headaches, irritated eyes, and lethargy, all symptoms of the increasingly common "sick building syndrome," their CEO called in a biologist. Typically, the answer has been to hire a phalanx of engineers and drain the bank account in an effort to alleviate the problem. In this instance, however, biologist Wolfgang Amelung installed a "breathing wall."

This self-sustaining ecosystem is a complex combination of water, rock, frogs, fish, insects, and over 400 species of plants. Contaminants in the air are absorbed by the vegetation and consumed by the microorganisms in the soil. Excess waste is carried into a small pond where it is eaten by frogs, fish, and insects. The wall acts as a biofilter, cleansing the air and circulating it naturally through the office.

Shortly after the installation, Joe Martin, the CEO of Club Monaco, perceived a noticeable improvement in the air. "Not only did the air smell sweeter, but I noticed a higher energy level among the staff," he says.

While biofiltration is not an entirely new process, Amelung's innovation has allowed him to apply the technology to indoor air quality. His company, Genetron Systems, has been creating small-scale ecosystems for the past decade. The 40-square-foot breathing wall that his firm designed for Club Monaco proves that large corporate installations are possible. As he sees it, eco-engineering and Genetron Systems are ready to move up the corporate ladder.

—*E Magazine*

LOGGING FOR CONSERVATION

The Nature Conservancy, known for preserving landscapes by buying land and development rights, is considering logging as another tool to protect forest land in Virginia. As the coal industry has begun to wane in the southwest portion of the state, timber cutting has increased. According to a survey by the state Department of Forestry, between 1986 and 1992 the amount of hardwood cut annually in the region doubled and the cutting of softwood increased sevenfold.

By using selective logging and less destructive methods of harvesting timber, the conservancy hopes to boost the local economy while avoiding environmental damage. The organization is considering purchasing a

mill that would supply lumber as well as specialty woods for craftsmen and furniture-makers.

Another possibility for diversifying the region's coal-based economy is to foster the tourism industry. Eliminating unsightly clear cuts would contribute to that effort. At the same time, it would protect the scenic Clinch River watershed from runoff that chokes streams with mud and silt. The Clinch River is home to 17 rare fish species and 31 rare mussel species.

Since 1960, the conservancy has purchased more than 210,000 acres of land and conservation easements in Virginia and anticipates adding more acreage. Purchasing timber rights from the many small landowners in the area would allow the ownership to remain in local hands while the conservancy manages the land and supplies the timber to create new employment opportunities in the area.

The Nature Conservancy hopes to tie the environment to the economy by providing jobs through good forest management.

—*Richmond Times-Dispatch*

ANCIENT APPLES

Duchess of Oldenburg, Maiden's Blush, Esopus Spitzenberg, and Black Gilliflower. These are not exactly household names for those of us on the threshold of the 21st century, but they were as familiar to early American settlers as Granny Smiths and Golden Delicious are to us today.

These ancient strains have all but disappeared from commercial American orchards as the mass cultivation of apples has tended to favor just seven or eight varieties. Fortunately, some of these rare varieties are being preserved. One place is Alyson's Apple Orchards near Walpole, New Hampshire. Consumers who prefer apples with a strong flavor or dense flesh can always find something to please their pallets at Alyson's.

The orchard also plays another critical role in the world of apple lovers by preserving rare genes. When large growers reduced the number of varieties they cultivated, they also reduced the size of the gene pool and opened themselves to the possibility of increased susceptibility to pests and disease. So in addition to the orchard, Alyson's runs a nursery with 1,000 specialty varieties. This reservoir of genetic material could someday prove invaluable to the apple industry.

The apples from Alyson's do not qualify as organic according to various certification boards and the U.S. Department of Agriculture because the managers use synthetic chemicals with low toxicity along with bio-

logical pest management practices. Despite the lack of an organic label, the apples are in high demand because of the growing interest in fine and unusual foods.

In addition to preserving biological diversity, the orchard is also one of the mainstays of the local economy. Competition from large commercial orchards in the West, as well as imports from abroad, have shut down many small New England orchards.

—*Conservation Matters*

ASHES TO CONCRETE

One man's trash is another man's treasure is more than an old adage to several American companies. It is the key to their financial success. These firms are recycling the ash from trash incinerators and coal-burning electric generating stations and giving it new life as a construction material. It can be used in concrete, cement, and a variety of road-building and maintenance projects.

The technology has been widely used in Europe, but has never caught on in the United States. Most ash is still buried in huge pits and must be constantly monitored to meet environmental standards. It is an expensive process, while recycling the ash can actually generate income.

Southwest Public Service Co. near Amarillo, Texas, recycles about 500,000 tons of ash a year. In 1997, it made \$275,000 from the waste product and last year its revenues grew to \$400,000. The ash is being used not only in concrete and cement, but also for road maintenance and de-icing operations by the Texas Department of Transportation.

Environmental Capital Holdings Inc. of Jacksonville, Florida, imported its ash recycling technology from Holland and is now exporting it to Japan. The company has designed portable units that can process three to five tons of ash per hour, turning it into an aggregate material that can be used in concrete blocks. It has signed a 15-year licensing deal for these mobile units with a Tokyo-based company.

With a virtually unlimited supply of ash, it looks as though these companies have found a profitable niche in the recycling world.

—*Knight-Ridder*

Readers: If you know of any market-oriented approaches to environmental protection that have gone unnoticed or deserve greater attention, let us hear about them (linda@perc.org).

TRUSTING WATER MARKETS

By Clay J. Landry

In much of the West, the snow is still falling. The snowpack has yet to melt, bringing fresh cool water flowing into our streams. But in no time at all, summer will be here.

Summer is a tough time for many of our rivers and streams and for the fish that live in them. By August, low water levels and high water temperatures often threaten fish. Some rivers even run dry. Here in Montana it happened to the Gallatin, the Big Hole, and the Ruby.

Fortunately, we have an opportunity to make sure that western rivers never run dry again. We can create water trusts. These are private, nonprofit organizations that acquire water through voluntary market transfers from farmers and ranchers.

The idea is simple. Through cash payments and tax benefits, a trust gives farmers and ranchers an incentive to lease or donate all or part of their water right and leave it in the stream. There it can protect fish and wildlife habitat, improve water quality, and provide recreational opportunities.

A water trust can help avoid the water wars of the past. Such an organization provides a way for the agricultural community and environmentalists, who usually don't see eye-to-eye, to work together. It is "the best tool for preserving water for future generations," Tom Anacker, president of a Montana chapter of Trout Unlimited, told me. Lorents Grosfield, a Montana rancher and state senator, agrees. It could "be very successful in preventing future fish kills caused by dewatering."

Three states—Oregon, Nevada, and Washington—already have trusts that bring irrigators and environmentalists together to save their streams.

The nation's first trust formed in Oregon in 1993

*A trust gives
farmers and ranchers
an incentive to lease or donate
all or part of their water
right and leave it in
the stream.*

and negotiated its first successful lease within one year. In that deal, the Oregon Water Trust purchased hay for a rancher so he did not have to divert water to grow his own. The additional water helped keep a creek flowing through a hot summer and provided critical habitat for steelhead trout.

Great Basin Land and Water, formed in 1996, addresses water quality concerns in the Truckee River in Nevada. The group pays

farmers for water they leave in the river. This improves the quality of the river, which provides habitat for endangered fish as well as serving as a source of drinking water for several cities. And the Washington Water Trust, formed last year, hopes to complete its first deal by early next summer.

Recent legislative changes make water trusts possible. The process started in 1987 when Oregon adopted changes that allowed public or private entities to lease or purchase water rights and convert them to instream flow rights. Before that, an owner who left water in the stream would lose the right to that water. Now, the holder of a water right can simply leave water in a stream to benefit fish, and retain the right.

Other states have also opened opportunities for the creation of water trusts. In 1991, California changed its water code to allow water rights transfers to preserve or enhance wetlands habitat, fish and wildlife, or recreation. In 1995, Montana began to allow private groups to acquire water rights for instream flows.

Purchasing water to protect fish and other wildlife may seem a overwhelming task. How can a private trust buy enough water to noticeably affect the fate of fish in the Columbia, Snake, or the Colorado rivers? The an-

swer is that water trusts don't need to feed these giant rivers, yet they can still be effective by improving the flows on small streams.

Working cooperatively with farmers and ranchers, the Oregon trust has used its limited acquisition budget—initially, \$500,000—to protect flows in 25 streams and rivers, many of them important spawning grounds for steelhead or salmon. In a recent purchase on Squaw Creek, a small stream in central Oregon, the trust spent \$42,000 to increase flows by .86 cubic feet per second on a three-mile stretch of the creek that dries up in most years. The increase is small, but

the additional flow provides habitat for bull trout, which is proposed for listing under the Endangered Species Act.

To start a trust, what is needed? Just a handful of interested citizens, a few of them with expertise, and a sprinkling of seed money. I'm hoping to see a trust started this year in Montana. And I'm hoping that trusts in the other western states will be right around the bend.

Clay J. Landry is a PERC Research Associate. He is author of Saving Our Streams through Water Markets: A Practical Guide, available for \$5 from PERC (406) 587-9591).

WHY CAN'T YOU COLLECT FOSSILS ON PUBLIC LANDS?

MODERNIZE THE FOSSIL TRADE

by J. Bishop Grewell and Matthew Brown

Fort Peck Dinosaur Discoveries of McCone County, Montana, is trying to save debt-ridden ranchers by helping them harvest dinosaur bones. Tourists can hunt for bones on private land, accompanied by a guide, and will receive a finder's fee for any specimens they manage to track down. Dinosaur Discoveries will sell the fossils and share half the profit with the landowner. The fossils' purchasers (be they museums or private corporations) will do the actual excavation.

By finding fossils, the firm is protecting them from their most serious danger, erosion. However, the company can only operate on private land.

At present, it is illegal for a company like Dinosaur Discoveries to collect fossils on public lands. Only paleontologists with government permits can collect fossils on public land, and only the government can own fossils from public land (although they can remain in approved repositories such as museums and universities).

There are only about fifty academic dinosaur paleontologists in the United States. Yet thousands of

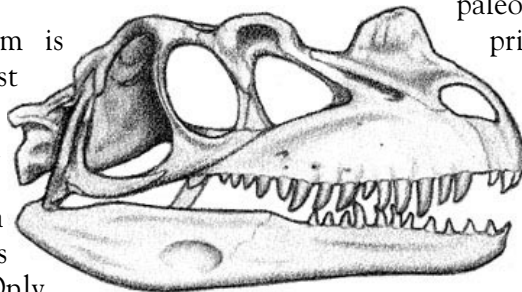
fossils come to the surface each year, and the Paleontological Society's Code of Fossil Collecting states that leaving them uncollected "assures their degradation and ultimate loss" through weathering and erosion.

Private entrepreneurs and collectors, like Dinosaur Discoveries, argue that private individuals should be allowed access to the fossils on public lands and ownership of any fossils they find—"finders-keepers." Many paleontologists disagree. They say that private hunting would remove fossils from the public sector to private collections, hurting science and education. They also claim that the profit motive would lead to quick, poor-quality expeditions.

In our view, that way of thinking is behind the times. A

number of joint ventures among museums, universities and businesses are ensuring that valuable scientific discoveries are made in paleontology.

Recently the Chicago Field Museum, with financial support from McDonald's, Disney World, and other groups, purchased the T-Rex skeleton "Sue." Because it was discovered on private property in



FOSSILS

Montana, it could be sold at auction. Despite the great uproar from scientists who didn't want it to be auctioned, but rather donated to a museum, the sale of Sue showed that valuable scientific discoveries can be distributed through the market.

Paleontologist Robert Bakker, curator of the Tate Museum in Casper, Wyoming, admits, "There is a class system. We guys with Ph.D.s think that we have a God-given right to dictate where and how specimens are collected. That is narrow-minded, and not in the public interest." In fact, many of history's most important dinosaur discoveries were made not by professionals, but by amateurs:

- Two of the world's 14 complete T-Rex skeletons (as of 1993) were discovered by Stan Sacrison, a plumber and electrician who spends his spare time searching for fossils.

- The American Museum of Natural History in New York began its dinosaur collection with contributions from wealthy adventurers who sought them just for fun.
- Most of the major fossil collections in English museums, including the famed London Museum of Natural History, owe their impressive collections to the work of a single English family, the Annings, who took up fossil hunting to support themselves in the early 1800s.

Rather than enforcing an elitist regulation that limits discoveries like these, the law should allow private groups to become involved in the process. It would mean more competition for professional paleontologists, but it also would mean more scientific discoveries and a greater understanding of the past.

J. Bishop Grewell and Matthew Brown are researchers at PERC.



economist, n. *a scoundrel whose faulty vision sees things as they are, not as they ought to be.*

—after Ambrose Bierce

Most discussions of large-scale ecological change simply assume that the consequences will be harmful and that centralized government action is the best way to mitigate that harm. But change brings opportunity, and markets are masters of capitalizing on opportunity. Indeed, recent research suggests that free markets may help transform global climate change into a source of net benefits for humankind.¹

Brent Sohngen and Robert Mendelsohn have woven together analyses from ecology and economics to assess the likely consequences of global climate change over the next sixty years. They use existing models of climate

change and ecology to lay out the most likely scenarios for ecological health. They then combine this with an economic model that enables them to estimate the costs and benefits of each scenario.

Prior attempts to assess the economic impact of climate change have focused on "before and after" comparisons. Sohngen and Mendelsohn vastly improve upon this approach by focusing on the time path of adjustment—which, as it turns out, is where most of the action is. During the transition to climate change, some species will be favored and some disfavored. The net economic consequences will depend on whether and how quickly humans

take advantage of the changes. Sohngen and Mendelsohn are the first to explicitly demonstrate the crucial importance of this adjustment process.

The centerpiece of their analysis is the timber industry. The authors find that the changes forecasted by the leading climate models will actually yield net economic benefits in this sector, because higher global temperatures will favor trees that have high economic productivity, such as loblolly pine and other southern forest species. And although the consequences of climate change will no doubt vary across nations and sectors, the authors' approach is applicable to all forms of economic activity in the presence of ecological change. Hence, their results provide insights on several key issues.

First, even taking as given the meteorological implications of a specific climate change model and focusing only on the impact on U.S. forests leaves great uncertainty about the economic consequences. For example, forest ecologists disagree over whether climate change will cause widespread dieback (increased mortality) among tree species trapped in the wrong climate, or simply impair the ability of species to regenerate. The economic implications are more severe for dieback, yet no one knows now which scenario is more likely.

Second, the human response to changing circumstances will play a key role in determining the effects of climate change. Consider the possibility of dieback. Landowners can hasten the transition to a new ecosystem and reduce potentially harmful economic impacts by replacing old species with new, more appropriate species. Alternatively, if impaired regeneration is the key effect, the process will take many decades if natural forces are left alone to adjust. By selectively planting adaptable species, landowners can greatly accelerate the transition. Under either scenario, profit-seeking human action confers ecological benefits.

Such action has another effect. Because the species that will be favored by climate change are significantly more productive, net economic benefits will occur.

Sohngen and Mendelsohn find that individuals acting through markets also reduce uncertainty. Specifically, when profit-motivated people take into account the full range of both current and future events, they are able to smooth the behavior of prices over time. This reduces the

economic disruption that occurs when prices move in unanticipated ways. For example, if the dieback scenario begins to emerge as likely, appropriately timed salvage operations will dampen the magnitude of price movements. Through the operation of futures markets in timber products, this will also produce credible information that other actors can use.

Overall, the authors find that, for the U.S. timber industry, the sort of global climate change most widely forecasted will actually produce net economic benefits of perhaps \$20-\$25 billion in present value terms. Of far more importance, however, is that their dynamic analysis illuminates the pivotal role played by the market in

adjusting to large-scale ecological change. Sensible adaptation to change of this magnitude, over this sort of time scale, calls for extraordinary foresight about the future. It also requires the ability to react now to events that might—or might not—transpire ten or even fifty years in the future.

Markets provide this foresight and flexibility and give individuals the incentives to react appropriately. Moreover, I would argue, it is this sort of environment in which political and bureaucratic institutions, keyed as they are to incumbent appointees or the next election cycle, perform at their worst. Yet a central finding of the paper by Sohngen and Mendelsohn is that foresight

and flexibility are essential if we are to make the most of whatever lies ahead.

The debate over whether and why global climate change is occurring likely will continue for years to come. The message of the present paper is this: Regardless of the outcome of that debate, and regardless of the future path of the world's ecosystem, it is the market that will enable us to reduce the ecological damage and enhance the economic benefits of what lies ahead.

Note

1. See Brent Sohngen and Robert Mendelsohn, "Valuing the Impact of Large-Scale Ecological Change in a Market: The Effect of Climate Change on U.S. Timber," *American Economic Review*, September 1998, pp. 686-710.

Daniel K. Benjamin is a PERC Senior Associate and Professor of Economics at Clemson University. "Tangents" investigates policy implications of recent academic research.

■

During the transition to climate change, some species will be favored and some disfavored. The net economic consequences will depend on whether and how quickly humans take advantage of the changes.

■

what's new

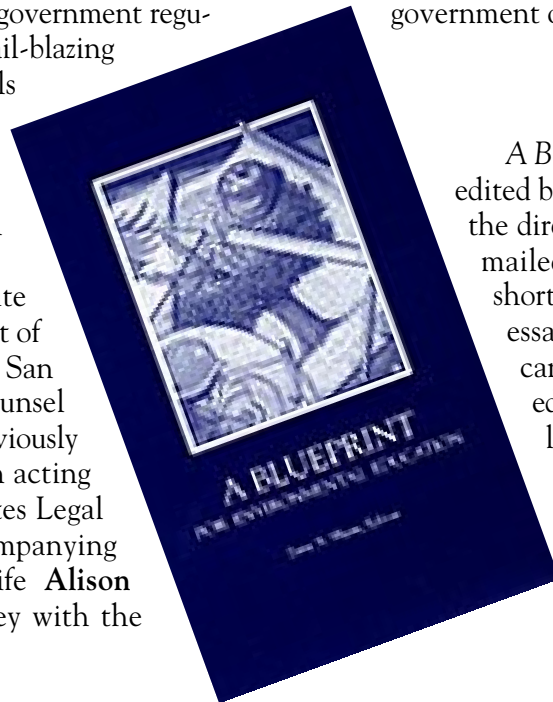
PERC UPDATE

"An Evening with PERC" was held February 21 in Bozeman. This annual dinner and reception is designed to acquaint local community and state leaders with PERC. This year's guests heard Institute for Justice president **William "Chip" Mellor** speak on "Regulations vs. Entrepreneurship: Fighting for the Little Guy."

The Institute for Justice, which Mellor founded along with **Clint Bolick**, has become a leading champion of individual liberties. The Washington, D.C.-based organization represents individuals whose economic liberties have been curtailed by excessive government regulation. The institute conducts trail-blazing litigation on behalf of individuals from small landowners to would-be entrepreneurs. The *Wall Street Journal* described the organization as the "new civil rights activists."

Before founding the institute with Bolick, Mellor was president of the Pacific Research Institute in San Francisco and deputy general counsel at the Department of Energy. Previously he was an attorney for, and then acting president of, the Mountain States Legal Foundation in Denver. Accompanying Mellor to Bozeman were his wife **Alison Ling**, an environmental attorney with the Navy, and their two children.

CAMPFIRE (Communal Areas Management Program for Indigenous Resources) program in Zimbabwe have shown that elephants can be hunted and protected from extinction at the same time. Since CAMPFIRE was launched in 1989 elephant populations in Zimbabwe have grown from 37,000 to 70,000. PERC Senior Associate **Randy Simmons**, who helped publicize market approaches for protecting elephants, sees the move as recognition that "given the proper market incentives, private individuals can do a better job than the government of protecting endangered species."



A Blueprint for Environmental Education, edited by **Jane S. Shaw** and produced under the direction of **Dianna Rienhart**, will be mailed to environmental educators shortly. The book is a lively collection of essays about the role that economics can play in improving environmental education. It includes readings that illustrate the application of free market environmentalism. The *Blueprint*, whose ISBN number is 0-9668243-1-8, is available from PERC for \$5.

Free market environmentalism continues to expand its influence. In February the United Nations committee that oversees CITES, the Convention on International Trade in Endangered Species, approved a limited sale of ivory from Botswana, Namibia, and Zimbabwe to Japan. Ivory from African elephants has long been a source of controversy among environmentalists, and its trade was banned in much of Africa and the world under CITES in 1989. But efforts such as the

Research associate **Holly Lippke Fretwell** was PERC's representative at the Environmental Summit on the West sponsored by the Western Governors' Association in Phoenix in December. The topic of the conference was *enlibra*, a new term in environmentalism coined by Utah governor Mike Leavitt. The term means balance and stewardship.

Because the West experiences many environmental conflicts, western governors are searching for new ways to address environmental concerns. *Enlibra* stresses assigning responsibility to the right level of gov-

ernment (not always the federal government) and emphasizing performance, not programs, and economic incentives, not command and control. Fretwell is guardedly optimistic about the prospects for *enlibra*. “The idea of moving away from total government control is encouraging, but many policy makers still don’t understand the true potential of free market environmentalism,” she says.

The March issue of *Organization Trends* features “Reading, ‘Riting, and Recycling: Environmentalists Develop School Curricula,” by PERC Research Assistant **Matthew Brown**. The article highlights the increasing role played by government funds in environmental education. *Organization Trends* is published monthly by the Washington D.C.-based Capital Research Center.

When you call PERC, you may be greeted by **Sheila Spain**, a new employee. Spain, who was previously a court operations specialist in Sierra Vista, Arizona, has replaced **Amy Burk**, who is studying elementary education at Montana State University.

The latest volume in the Political Economy Forum series published by Rowman & Littlefield is *Who Owns the Environment?* Edited by **Peter J. Hill** and **Roger E. Meiners**, the book’s essays discuss the connection between private property rights and environmental protection.

The first chapter, by **Louis De Alessi**, lays out the theoretical foundations of free market environmentalism and discusses actual applications. Subsequent chapters offer a variety of perspectives on ownership and environmental protection. **Seth Norton** shows how around the world the protection of property rights is linked to higher indices of well-being. **Donald J. Boudreax** and **Roger E. Meiners** explain why contingent valuation (a method of determining the value of the environment through surveys) is unreliable. **Bruce Yandle** contrasts the Pigouvian and Coasean ways of understanding environmental problems, expanding the usual interpretation of Ronald Coase’s work as he does so. **Vernon Smith** applies his work in experimental economics to understanding the roots of trade.

Other essays are written by **Terry L. Anderson**, **Elizabeth Brubaker**, **William J. Carney**, **Richard A. Epstein**, and **Donald R. Leal**. Terry L. Anderson edits the series and **Dianna Rienhart** oversees manuscript

preparation for most of the volumes in the series. The book is available from Rowman & Littlefield (800-462-6420).

Jonathan Adler was named the William S. Broadbent Fellow for 1998, in recognition of the best paper written by a PERC fellow. His paper assesses the extent to which the commerce clause of the U.S. Constitution limits federal authority to regulate wetlands. It will be published in *Environmental Law*. Adler directs the environmental program at the Competitive Enterprise Institute. **Richard Stroup** oversaw his research at PERC last summer and **Michael Krauss** of George Mason University Law School recommended Adler for the fellowship.

Richard Stroup speaks this month on “Property Rights, Morality, and Environmental Policy” at St. Vincent College in Latrobe, Pennsylvania. In February he spoke at an environmental conference at Tulane Law School. **Jane Shaw** discussed the state of environmental education at a science teachers’ workshop organized by Phillips Petroleum Company. **Don Leal** takes part this month in a conference sponsored by the Institute for Justice’s Center for Applied Jurisprudence. **Terry Anderson** will give a short environmental economics course to business students in Vienna, Austria.

Clay Landry appeared on the cover of the *Montana Farmer-Stockman* magazine in December, fishing at the edge of an irrigation diversion dam on Montana’s Stillwater River. His article on voluntary water markets was published in other state editions of the *Farmer-Stockman* as well. Landry has lectured throughout the West and was recently invited to speak at a water conference in England sponsored by the Ditchley Foundation and the Royal Agricultural Society of England. His article recommending water trusts to purchase or lease instream flows is on p. 12 of this issue of *PERC Reports*.

Correction: The February issue of *PERC Reports* misidentified the director of the Mercatus Center at George Mason University. The director is **Tyler Cowen**, who also heads the James M. Buchanan Center for Political Economy at the University. **Wendy Lee Gramm** heads the Mercatus Center’s regulatory studies program.

letters to the editor

REACTIONS

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Commuting Time is Going Down

A basic problem with the anti-sprawl crusade (February 1999) is its flawed statistical foundations. Average commute times have remained remarkably constant over the past quarter century, having declined from an average of 22.0 minutes in 1969 to 20.7 minutes in 1995.† U.S. automobile commute times are faster than in more transit-dependent Europe and Japan. Faster commute times are generally associated with *higher, rather than lower* levels of automobile dependency.

Randal O'Toole has shown that higher density (less sprawl) is closely associated with higher levels of air pollution. Not surprisingly, the same is true of traffic congestion. While it may not yet be evident to Portland officials, they have decided that, in the long run, it is better to have two million cars in 400 square miles than in 500. Portland's rapidly growing traffic congestion is witness to the absurdity of such policies.

*Wendell Cox
Principal, Wendell Cox Consultancy
Belleville, Illinois*

† See www.publicpurpose.com/ut-6995commute.htm or U.S. Dept. of Transportation, 1990 NPTS: *Nationwide Personal Transportation Survey* (1992), p. 24.

Zoning Makes Sprawl Inevitable

In their exchange on the costs and causes of urban sprawl, neither Carl Pope nor Randall Holcombe pays much attention to what I view as the most likely culprit:

the lowly building permit. Only in modern times have courts viewed the regulation of individual buildings as a legitimate exercise of the state's police power. Sometimes—as with building codes—there is a plausible public-safety rationale; more often we simply take it for granted that any private construction requires a government permit.

Zoning was intended to make the issuance and denial of building permits less arbitrary; and “comprehensive plans,” in turn, were invented to make zoning less arbitrary. But at the foundation of all this legal and bureaucratic architecture is a simple truth: Localities can deny permission to someone who wants to build, but they cannot force someone to build who does not want to. The power to withhold building permits is an asymmetrical one.

Why does this matter? First, note that zoning does not much affect the total number of households and businesses in the United States. It does, however, affect how many households and businesses are in any one place, and thus how they are generally arrayed across the landscape. Because governments have the power to forbid construction, and no power to require it, the cumulative effect of all these one-sided decisions is that houses and businesses are farther apart than the market would otherwise demand.

Yes, planners may designate high-density zones and favor town centers and cluster housing. But they cannot simply make development happen the way they want it. Ultimately, the enforcement of any growth plan depends on the denial of permits. So the net result of all the bargaining and bullying between local governments and developers is a lower density overall than the market by itself would produce.



If this is so, then it doesn't much matter what the latest trend is in planning schools and zoning offices, or how "smart" the growth plans are. Zoning, by its nature, aggravates sprawl. And it can never do otherwise.

Hate sprawl? Fight zoning.

*Brian Mannix
Buckland, Virginia*

Mr. Mannix is Director of Science and Technology Studies for the Manufacturers Alliance/MAPI Inc. in Virginia. He was previously Deputy Secretary of Natural Resources for the Commonwealth of Virginia.

Portland Not All That Livable

Two points in response to Carl Pope's article:

First, Pope says that the suburbs are massively subsidized. His claims of subsidies are based on studies that show that new residential developments pay less in taxes than they get in services. He assumes that existing residents are making up the difference.

In fact, existing residents also pay less in taxes than they get in services. This is because most state property tax regimes make commercial areas subsidize the residential areas. Since new residential developments are usually accompanied by new commercial development, in fact there are no net government subsidies.

Second, Pope praises Portland's urban-growth boundary, which he says has made Portland one of the world's most livable cities. I disagree. Consider:

- The boundary has turned Portland's housing market into the second least affordable in the nation.
- Portland congestion is rising faster than any other city on the west coast.
- Open space within the boundary is fast disappearing as farms, golf courses, and even city parks are being developed.
- There is no evidence that the boundary is protecting open space elsewhere. Washington, Arizona, Nevada, and other states without urban-growth boundaries are retaining as much if not more open space, relative to population growth, as Oregon.

*Randal O'Toole
Visiting Scholar
University of California, Berkeley*

Farms Destroy Native Environment

Carl Pope's article contains the statement that "sprawl neighborhoods typically replace farmland or open space that was 100 percent vegetation and perme-

able soils." I've just returned from a visit to relatives in central Iowa. We drove for miles through some of the world's most productive farmland. I would estimate that approximately five percent was covered by vegetation. Of course, if I'd returned in July it would be at least 95 percent covered by vegetation. The vegetation, however, is as much of an insult to the environment as concrete paving would be: The plants are all artificial and indeed most of them, if left alone, would not reproduce themselves. I admit the soil is permeable, but that is a small advantage.

In fact, the largest industry to destroy the native environment is farming. This has been true throughout history. Today the modern American farm requires rather specialized land and as a consequence the Appalachian mountains and many other areas have returned to pre-farm conditions. Environmentalists should be happy about this, but I never see them saying they are.

*Gordon Tullock
Karl Eller Professor of Economics
and Political Science
University of Arizona, Tucson*

Professor Tullock is a founder of the public choice school of economics. His latest book is *On Voting* (Edward Elgar).

Help PERC and Save on Taxes

People who are interested in supporting PERC's goals may do so while taking advantage of a nice tax deduction. With the equity markets at all-time highs (and rising), a PERC supporter may donate a specific number of shares of appreciated stock, take the full value of the donation as a deduction on his or her tax return, and not have to pay a capital gains tax. PERC will get the full value of the gift by selling the stock.

I did this in 1998 to support PERC's efforts to get the "free market environmentalism" message out. I encourage others to do so, too.

*Judd Hanna
Circle S Ranch
Mill Creek, California*

Editor's Note: Any potential donor who is interested should contact David Palagi, PERC's account manager at Salomon Smith Barney (406-522-2040).

EXCERPT

PARK FEES EARN PRAISE

For years, PERC has argued that realistic recreation fees would benefit park visitors and park resources. Thus, we welcomed a federal program that raises fees at about 100 national parks as well as national forests and other public lands. Under this program, most of the proceeds from fees are kept in the parks and other areas where they are collected.

Recently, Michael Milstein discussed a new General Accounting Office report on the National Park Service fee program. The following are excerpts from his February 16, 1999, article in the *Billings Gazette*:

Proceeds from higher entrance fees at national parks such as Yellowstone may eventually make decrepit facilities a thing of the past, a federal report says.

The report to Congress also says parks should take advantage of innovative fee structures to encourage people to visit during off-peak periods.

Such an arrangement might reduce the ‘black market’ for weekly entrance passes that has risen in Yellowstone, the report says.

Revenues from the higher fees boosted Grand Teton’s income by nearly 50 percent above its established 1998 operating budget and added nearly 25 percent to Yellowstone’s operating budget of \$22 million. Such dramatic increases should allow parks to take large steps toward eliminating the estimated \$6 billion maintenance backlog afflicting parks nationwide.

Fees at Zion National Park in Utah, for instance, last year produced about \$4.5 million—matching the park’s original \$4.5 million operating budget for 1998.

PERC will be assessing the fee demonstration program in a forthcoming paper by Holly Lippke Fretwell. Background on national park recreation fees can be found in the PERC Policy Series paper (PS-10) “Back to the Future to Save Our Parks” by Donald R. Leal and Holly Lippke Fretwell. It is available from the PERC office.

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