



An Economic Look at Land Use Planning: the Environmental Perspective

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An Economic Look at Land Use Planning: the Environmental Perspective

Mason Gaffney

Worthy goals often conflict. Growing barley is worthy; so is growing corn. Barley will grow on cheap land, demand is limited, so the best barley land is used for corn. The "highest and best use" of land is that yielding the highest net gain (revenues less costs). Thus the market sorts and arranges land uses, giving us a corn, wheat and cotton belt. By the same logic, irrigators take land from dry-farmers, and - here's the rub - cities take land from farmers and wildlife.

A well-oiled market is democratic. People of moderate income, by crowding, can outcompete those of high income for the same land, as when K-Mart takes the best commercial sites from I. Magnin, or an estate is subdivided into five lots per acre. This provokes negative rhetoric, but developers know how to make mincemeat of the opposition: they become populists and accuse foes of elitism. We need an answer to that that others, not just ourselves, will buy.

Some losers in the market game do not submit, but write new rules. Soils men classify and rank land by its farming potential: cities may have what's left over. Habitats persons give priority to wildlife. Each has a point, but - O, fatal lack! - neither has a system that composes conflict with other worthy goals. They even fight each other.

Both would direct cities away from low-cost, high-productivity land to high-cost leftover lands. To restore citriculture and habitat in what is now L.A. we would bump city folks onto floodplains, to erosive, incendiary steep slopes, to quake-prone fault lines and unstable, liquefiable building sites. We would move them outwards, imposing longer commutes and hauls, utility lines, more air and aquifer surface to protect, more land to protect from flooding, etc. Both soils men and habitats persons will become isolated unless they modify their new rules to accommodate other worthy goals with other constituents.

There is another kind of fundamentalist, the Private Property freak. Most economists have abdicated their proper role as arbitrators and signed on with these. How do they do it? They wipe out land (including resources, nature, and the environment) as a separate class worth noticing. In the now-orthodox Neo-classical dogma, the world is an infinite reservoir of raw land. Earth has no value until man - Prince Charming - awakens the poor spinster with two kisses. First, he subjects land to private tenure. Land without an owner has no value. J.B. Clark wrote that land has "the essential wealth-constituting attribute of appropriability." Those who seize land and exclude others thereby produce its value. Clark

founded Neo-classical Economics, modern Orthodoxy. The "New Resource Economists" of today follow closely.

Second, man improves the raw land, pumping value into it. Raw land has no value: God contributed nothing. Merely to eye the General Sherman redwood tree adds nothing to GNP, but cutting it down would add a lot.

In truth, I submit, private property is a means to an end: getting land put to the best use. It is not a welfare entitlement. Lawyers have turned the means into an end, a fetish they endow with "Sanctity," the quality or state of being Holy, hence Inviolable. "Sanctity" places Property above thought. *Taboo!*

Neoclassical economists, following Clark, surrendered the profession to this fetish. They worked in tandem with lawyers who twisted the 14th Amendment. The Amendment was passed to protect the rights of freed slaves; as interpreted now, it would mean The Emancipation Proclamation itself was unconstitutional. The Neo-classical economists' self-image is like that in The Realtor's Oath, "To protect the individual right of real estate ownership." This is a potent chant that stirs people to self-righteousness and breast-beating.

When it comes to violating property rights, air pollution actually invades more property than environmental regs. Where do economists stand? It's not the polluter who is transgressing; rather, to make him stop is invading his rights. We must pay him to stop, else we are violating the Sanctity of Property. Again, *Taboo!*

Environmental damage from those attitudes might not be so bad were it not for leapfrogging, scatter, urban disintegration, and floating value. Leapfrogging is when developers jump over the next eligible lands for urban expansion. It goes to astonishing extremes around here - we lead the world in it. Alfred Gobar, whose savvy is unrivaled, calculates the entire U.S. population could live in Missouri (68,965 square miles), considering just the land we actually use, as opposed to infiltrate. That allows 7,683 square feet per person: the area from the goal to the 16-yard line.

Gobar's Missouri would have 3,625 people psm. People live in Washington, D.C. at nearly triple the density, 10,000 psm. Even so they have a 10-story height limit, vast parks, wide baroque avenues and vistas, several campuses, and monumental public buildings and grounds. They also live at 10,000 psm in Whitefish Bay, Wisconsin, an upper-income suburb with broad beaches and parks, tree-lined streets, and detached houses. San Francisco has 15,000 psm, with more than half the land in parks, golf courses, military bases, water surface, industry, the CBD, tourism, and more. On Manhattan's upper East Side they pile up at over 100,000 psm. Is this our Calcutta, the desperate recourse of the poor in a Malthusian crowd? Not exactly: the wealthiest people pay millions

to live that way, by choice, in a stratum of space about 12 feet high on the umpteenth floor.

At a moderate, midwestern suburban 10,000 psm, 250 million Americans would require 25,000 square miles, the land in a circle with radius of 89 miles, no more. This is how little land we actually need if we settle compactly at this known suburban density. With all our leapfrogging and infiltrating, however, the price influence of Los Angeles alone extends over 89 miles to Temecula, where it meets demand from San Diego. *Urban valuation affects much more land than cities need.* Regardless, most landowners imagine they might cash in at a high price. This is "floating value." If their land is downzoned for farming, open space, or habitat, they plead the 14th Amendment. Once we buy into the Sanctity (Holiness, Sacredness) of Private Property as an end in itself, we owe them. The bill would break the taxpayers, who would then blame us.

Sprawl, infiltration, floating value, and Sanctity of Property put wildlife under siege. Here's how it feels: "ONCE HUMANS LIVED IN SMALL GROUPS SURROUNDED BY EXPANSES OF WILDERNESS. TODAY, HUMAN CIVILIZATION HAS PUSHED OUR NATURAL WORLD INTO EVER SMALLER, FRAGMENTED POCKETS OF DETERIORATING HABITAT. AS A RESULT, WE ARE LIVING IN AN AGE OF MASS EXTINCTION" (Vivian Null). I admire the graphic picture, and agree. When it comes to solutions, though, we have a problem. Being under siege fosters a siege mentality. "Science," for all its virtues, can also be a hard-line ideology, same as "Sanctity." The ideologies of Science and Property become absolutes facing off in combat. What can we do? Learn from history and its great people.

Gifford Pinchot, great parent of conservation, defined it as "THE GREATEST GOOD FOR THE GREATEST NUMBER FOR THE LONGEST TIME." Caviling theorists pick at the phrase, but it was a political winner because it said FOR THE GREATEST NUMBER. Conservation was for everyone. It was part of the Progressive Movement, scion of the Populist Movement. Habitat-savers, your foes score points by calling you "elitists." Pinchot dodged that brick before it was thrown. He teamed up with populists; he spoke for the people.

Look at the list of priorities in SCAG's public opinion survey. Preserving habitat and endangered species are not even among the top 17 priorities. (Neither are private property rights.) The top three concerns are crime, education, and jobs. Other populist issues high on the SCAG list are homelessness, affordable housing, job training, and child care.

On what basis shall habitat-savers identify with median Americans? We share a problem, once we see it: we are joint victims of Private Property sanctified as an end, rather than a means. Abe Lincoln once said that whenever landless people cannot find work and shelter, the rights of private property have been carried too far. Gifford Pinchot said "... NATURAL RESOURCES MUST BE DEVELOPED AND PRESERVED FOR THE BENEFIT OF THE MANY AND NOT MERELY FOR THE PROFIT OF A FEW. ... THE

PEOPLE SHALL GET THEIR FAIR SHARE OF THE BENEFIT WHICH COMES FROM THE DEVELOPMENT OF THE COUNTRY WHICH BELONGS TO US ALL."

Belongs to us all? Hold on, was this Pinchot a Pinko? Not likely: he was a Republican. The same folks who voted for Coolidge and Hoover made him twice Governor of Pennsylvania, 1923-27 and 1931-35.

Environmentalists might rethink what we mean by "open" space. It is not just empty space. To Pinchot, "open" meant "to the public." Today, though, "open" often means closed: golf clubs, duck clubs, sacred Indian lands, private beaches, cemeteries, farmlands, vacant speculative holdings, unpoliced parks taken over by gangs, protected and posted habitat, water guarded to confine swimmers, rights-of-way closed to hikers, University experimental plots, and so on. In this sense, there is more open land in downtown Manhattan than in many country areas.

To get more support for habitat, find ways to open it to people, putting more funds and effort into behavioral controls. Think of the effort not as grudging and defensive; affirmative character training is part of education. Little League fields are open space; they serve middle America, and let millions release aggressive young hormones without use of ATVs, needles or condoms. Second, go with the flow for economy in government. Now, we look to big government to resolve disputes by buying out both parties. We would have government pay top dollar for land, then hire scientists to manage it for habitat. Both sides dream of the government trough, but the trough is empty. Rather, look for ways to cut spending by curbing subsidies to urban sprawl, and aiding compact use of existing cities.

Gifford Pinchot was not against developing land. "THE FIRST PRINCIPLE OF CONSERVATION IS DEVELOPMENT," he said, "THE USE OF THE NATURAL RESOURCES ... FOR THE BENEFIT OF THE PEOPLE WHO LIVE HERE NOW. THERE MAY BE JUST AS MUCH WASTE IN NEGLECTING THE DEVELOPMENT AND USE OF CERTAIN NATURAL RESOURCES AS THERE IS IN THEIR DESTRUCTION BY WASTE." Urban land makes an example. Economists liken it to flowing water because its services perish with time, used or not. Likewise, use does not deplete urban land. It is an even better example of a "flow resource" than flowing water itself, because water may have other downstream uses.

What are these "services" of urban land? Using central urban land conserves all the gas and other resources otherwise needed to traverse it. Compact settlement substitutes for oil. Second, it saves the costs of infiltrating other land, spoiling soils and habitat. *This is the great lost secret of conservation.* To stop urban sprawl use extant cities compactly and efficiently.

We have met the enemy, and it is US (Urban Sprawl). Many people equate sprawl with growth, but these differ. Cities may grow like the posh upper East Side of Manhattan with 100,000 psm, or Oklahoma City with 734. We have seen that 250 million Americans could fit

nicely into a small part of southern California at the moderate suburban density of Whitefish Bay, Wisconsin (10,000 per square mile). Urban sprawl is development in the wrong places, from leapfrogging, scattering and infiltrating. The cure is infilling.

Sprawl is not a quest for open space. Observe scattered subdivisions. *Within* each, you live at downtown densities. It is on the road to work or shop or chauffeur kids that you pass empty space. It is a negative resource: just an obstacle.

Sprawl is not freely chosen. Sprawl springs from subsidies to sprawl, enforced through taxation and utility rate regulation imposed by government. Postal service exemplifies the genus. It costs the same 29¢ to send a letter across the street downtown, or Temecula to Moorpark. The generic name for subsidies to sprawl is "postage-stamp pricing." We price most utilities this way.

There are many little island retreats for the wealthy in the Straits of Georgia (B.C.). Having clout, they receive car-ferry service that costs \$10 for every \$1 in revenue. The deficit is covered by overcharging plebeians in Vancouver. Naturally, these cheap ferries attract new demand for land in the islands; new buyers and hopeful subdividers bid up land prices. The old settlers feel under siege, and appeal to the Crown to preserve land for habitat by purchase or downzoning. The public pays twice. Landowners are not charged when the ferries raise their land values, but demand compensation when downzoned or condemned.

Here, in microcosm, is our problem. Multiply that ferry subsidy a thousand times, and you have the Great American System of Public Service for Private Gain. The public pays to bring urban demand to remote lands; then landowners demand payment not to exploit the opportunities we give them free. The courts still sometimes let us downzone without compensating, but just you wait. Proposition 300, on the ballot in Arizona, calls for compensation for downzoning - it is aimed at the Clean Water Act and the Endangered Species Act. Congress is stirring to compensate for any Federal regulation that devalues land by more than 50%. You can imagine what a more conservative Congress will do. Speculative landowners may soon get everything, leaving heavy public debts for others - you and me - to shoulder. Their tax payments contribute little or nothing.

How do we dig out of this hole? Again, go with the flow against waste in government, and cut subsidies to sprawl. We'll keep losing so long as they keep flowing. A second proactive solution is to motivate and help the owners of good land develop or renew it. Make infilling a positive goal. Impose fees on new buildings only in outlying areas that require new public services, not in South Central L.A. If you ration sewer hookups, save them for central land with street improvements in place.

Besides carrots, we need a stick. We can motivate sellers near-in by raising land taxes or benefit assessments there. We can do the

same, if we must expand, in successive compact increments. Proposition 13 caps the taxes, but not the benefit assessments. These apply the same healthy pro-incentive motivating force to owners of vacant land as land taxes apply.

An Economic Look at Land Use Planning:
the Environmental Perspective

Mason Gaffney

A paper presented at *Land Use: an Interactive Symposium* presented by The University of California, Division of Agricultural and Natural Resources, Urban and Environmental Outreach Program, September 14, 1994

The way my title is juxtaposed with the previous speaker's title, "The Development Perspective," it looks like an invitation to debate. Sorry to disappoint you, but I agree with much of what Al Gobar said, even if I don't expect him to agree with everything I shall say. He made two telling points I will free-ride on. First, you can import capital and labor, but not land. Second, the actual land needs of urban living are quite modest, so we could comfortably fit 250 million of us in the area of one state, Missouri. Besides that, I am relieved not to cross swords with someone I respect as much as Al, who knows this territory inside out and to whom local news reporters turn constantly.

"An economic look from an environmental perspective" - is that an oxymoron? There are economists who put down environmentalists as unwelcome intruders in social policy; there are environmentalists who file economists under "The Great Satan." Some economists deserve it. I will show how these differences arise, and how they may be composed.

I. Worthy goals often conflict with each other

A. Corn vs. Barley

Growing barley is a worthy goal (especially if you enjoy a little beer). So is growing corn. It would be great to raise as much of each as anyone wants, but the Earth has its limits. A choice and a decision are required. People invented (or stumbled into) the discipline of economics to help with such hard choices, and to console ourselves that we are doing the right thing. The hardest choices are those regarding land use, because there is just so much. We can build more houses, cars, and boats, write more music and drama, spawn and educate more people, but we cannot make another San Jacinto Mountain or Valley.

Barley grows on cheap land, and the demand is limited, so the best barley land is used for growing corn. Economics

reconciles the competing demands and rationalizes the outcome. It defines the "highest and best use" of land as that yielding the highest net gain, the excess of revenues over costs. Economists include non-cash "service flows" among "revenues," although they bear watching: sometimes they forget. Thus, economics shows how the market sorts and arranges land uses, giving us a corn belt, a wheat belt, and a cotton belt. Economists pride themselves on this achievement. (Some preen themselves too much, as we will see, and pride goeth before a fall.)

By the same logic, irrigated crops take land from dry-farmed crops; orchards take land from irrigated row crops; housing takes land from orchards and groves; commerce takes land from housing.

Sometimes the rich take land from the poor, provoking sympathy, strong rhetoric, and occasionally effective rear-guard resistance to such changes. Actually, a well-oiled market is often quite democratic. People of moderate income, by crowding, can outcompete those of high income for the same land, as when a Sears or Wal-mart takes the best commercial sites from a Nordstroms or Broadway; or when an old estate is subdivided into five lots per acre. This, too, provokes negative rhetoric, but developers know how to make hay out of this, and mincemeat of their opposition. At this point developers become populists and accuse preservationists and environmentalists of snobbery and elitism. We need an answer for that one if environmentalists are going to command enough popular support to win, and hold the gains. Of this, more later.

Other worthy goals that conflict are open space and water conservation. A major problem in an arid land is that much wide open space guzzles up water. Conserving open space and conserving water conflict directly. Green grass uses more water per acre than almost any farm crop except rice (and rice returns part of it downstream). In cities most water is used not for swimming pools or toilets or washing machines, but for sprinkling lawns. Cemeteries, golf courses, horse-pastures, parks, freeway banks, and the spacious tax-exempt grounds of institutions are the greatest water junkies outside of farming itself, which of course takes much more than all cities.

Something has to give. Thus far it has been wetlands that gave. Once, perhaps, we had too much wetland, but that was long ago. We cannot accommodate all those uses, and save wetlands too, just by having restaurants stop serving water, or putting bricks in toilet tanks. Those are just token or "Goo-Goo"

measures for parlor reformers; they distract us from real problems, and substitute for real solutions. What is the highest and best use of water? Wetlands, maybe; more golf courses, maybe not. But we need a rule to gauge "highest and best use." Is it the market? Read on.

B. *New rules*

Some of the losers in the market game are not willing to grin and bear it. Instead, they write new rules; they want to play a different game. Soilsman did this long since. They like to classify land and rank it by its potentiality for growing crops. Farming is - to them - the ultimate value, so it is the highest and best use: cities may have what's left over. It is perhaps poetic justice that habitat-savers are now doing the same thing to farmers. They conceive highest use as that which saves endangered species: soils and farming may be damned, right along with housing, commerce, transportation, industry, storage, water supply, waste disposal, fire control, education, religion, mining, government, national defense, recreation, and whatever else needs land. All human activities, and survival itself, need land, so that list is a long one. Each constituent of the other uses becomes an enemy.

C. *Unresolved conflicts*

Both Soilsman and habitatpersons have a point, we will see, but they have a fatal weakness. Neither has a system that composes conflict with other worthy goals, including each others'. As to cities, both soilsman and habitat-savers would direct cities away from low-cost, high-productivity land to the high-cost leftover lands. They would not make this an end in itself, of course, but it is the necessary by-product of downgrading urban usage in the competition for land.

Thus, to restore citriculture and habitat in what is now L.A. we would move the city folks to hazard-prone floodplains, steep slopes subject to fire and erosion, quake-prone fault lines and liquefiable soils, etc. We would also move them away from the center, imposing longer commutes, greater auto-dependency, longer utility lines, longer hauls to dispose of solid wastes, more air to protect, more aquifer surface to protect, more land to protect from flooding, etc.

D. *Danger of isolation through overkill*

Sometimes preservationism, like any good cause given power, runs completely amok and makes itself ridiculous. For example, in Downey, California, the Los Angeles Conservancy and the National Register of Historic Places are fighting hard to save - I am not making this up - a McDonald's drive-in, complete with neon sign! They are serious! Governor Wilson weighed in with this outburst of California pride: "The modern history of McDonald's will be as important to the cultural history of our nation as the invention of *Coca Cola*." (That comparison seems apt enough.) "Preserve for posterity the home of McDonald's golden arches!"

In Victoria, B.C., the University of Victoria bars people from 2-3 acres of its tax-free campus to preserve habitat for its nesting skylarks, an endangered species. Never mind that they are an import from England, like starlings: now they are being "preserved" to keep things natural. Likewise, a certain residence on a steep slope in the arid Malibu Hills contains an artificial pond, filled with pumped water, but adorned with reeds "to keep it natural."

Both soilsmen and habitat-persons will become isolated and ineffective unless they forswear extremism, and modify their new rules to accommodate other worthy goals with other constituencies. Until then, they will appear to others to be single-valued ideologues, fundamentalists with siege mentalities. To succeed they - we - must learn to lead larger alliances by offering more complete philosophies and guidelines for policy.

II. The Dereliction of Economists

There is another kind of fundamentalist, the private property kind. The economics profession (my tribe) has, in recent years, largely abdicated its proper role as an arbitrator and gone over mainly to the side of private-property extremism. This is the essential meaning of "Neo-classical Economics," which is the idiom of most discourse in the field today, both in business and in the profession.

How did economics get so twisted? Don't blame Adam Smith, or David Ricardo, or John Stuart Mill, or John E. Cairnes, or Knut Wicksell, or Philip Wicksteed, sterling 19th Century writers. Rather, blame J.B. Clark, Karl Marx, Richard T. Ely, Alvin Johnson, Frank Fetter, Frank Knight, George Stigler, and a

host of lesser figures who gradually warped economics into its present form. How did they do it?

A. *Defining away land*

They wiped out land, resources, nature, and the environment as a separate class for analysis. In official Neo-classical doctrine, the world is an infinite reservoir of raw land and resources. Raw land has no value until man does two things:

1. Man subjects land to private tenure. The very act of privatizing land gives it value it lacked before. Land without an owner has no value - take that, Aldo Leopold! You will find this in J.B. Clark, 1886, *The Philosophy of Wealth*. Clark points out that wealth is created "from the mere appropriation of limited natural gifts ..." (p.10). The atmosphere as a whole, showers or breezes, "minister transiently to whomsoever they will, and, in the long run, with impartiality." Therefore they are not wealth. Those who appropriate them create wealth by so doing. The essential attribute of wealth is "appropriability," to create which "the rights of property must be recognized and enforced, Whoever makes, interprets, or enforces law produces wealth." It follows that those who pollute the common air, or anything held in common, are not damaging anything of value, since it belongs to no one.

Clark writes of "the essential wealth-constituting attribute of appropriability." He goes on in that vein: those who seize land and exclude others thereby produce its value. Clark founded Neo-classical economics, and is emulated closely by the "New Resource Economists" of today.

2. Man improves the raw land, pumping value into it. After that it is just like any man-made capital. Raw land has no value: God contributed nothing. Consistently with this worldview, merely eyeing the General Sherman redwood tree adds nothing to GNP, but cutting it down would add a lot. Eyeing it would only raise GNP if you had to pay for it, or had to drive a long way to get there, and bought a kewpie doll while you were there. Likewise, commuting 80 miles a day raises GNP, while finding a homesite near work lowers it.

B. *Private property: from means to end*

In a proper view of things, I submit, private property is a means to an end. It is not an end in itself; it needs a functional rationale. The end is to get land put to the best

use. All the private land in the world was originally granted by some sovereign public person or body, mainly for that purpose, not as a welfare entitlement. Landowners and their lawyers have slyly, over time, turned the means into an end, a fetish they endow with "sanctity." This is a term they borrowed from absolutist medieval theology. "Sanctity" means the quality or state of being holy or sacred, hence inviolable. It means property may not be challenged, or even questioned. It has become an end in itself, its own voucher. You're not even supposed to think about it, it is above thought. *Taboo!*

Neoclassical economics, historically, marked the final, total surrender of the profession to this fetish. The modern economist's view runs something like this: "I pledge allegiance to the 14th Amendment, and to the overinterpretation of private landowner supremacy for which it has come to stand." It is ironic to recall that Radical Republicans passed that Amendment, at a time when a "Radical Republican" was one who favored freeing the slaves. The 14th Amendment was designed to protect the rights of freedmen. As interpreted now, the 14th Amendment means that The Emancipation Proclamation itself was unconstitutional! Fortunately, no one has brought that case - yet.

The Neo-classical economists' view of their proper role is rather like that in The Realtor's Oath, which includes a vow "To protect the individual right of real estate ownership." The word "individual" is construed broadly to include corporations, estates, trusts, anonymous offshore funds, schools, government agencies, institutions, partnerships, cooperatives, the Duke of Westminster, the Sultan of Brunei, the Medellin Cartel, Saddam Hussein, congregations, Archbishops, families (including criminal families) and so on, but "individual" sounds more all-American and subsumes them all. This is a potent chant that stirs people to extremes of self-righteousness and siege mentality when challenged.

The resemblance between Neo-classical economics and the Realtor's Oath is easier to understand when you learn that Professor Richard T. Ely, founder of the modern discipline of Land Economics, was heavily subsidized by the National Association of Real Estate Boards, the utilities, the major landowning railroads, and others of like mind and property interests.

When it comes to violating property rights, air pollution today is perhaps the greatest invader and confiscator of property. Where do economists stand? Once a few of them tried

to say, following A.C. Pigou, "let the polluter pay," and in parts of Europe they still do. In our modern backward thinking here at home, however, it's not the polluter who is invading the property of others, nor the human rights of those not owning property. Rather, when you tell them to stop, the government is invading *their* rights. The wage-earning taxpayers must pay them to stop, else you are violating both the 14th Amendment and the "Coase Theorem," a rationalization for polluting now dearly beloved by Neo-classical economists.

C. *Leapfrogging, floating value, and compensation*

The environmental damage from those attitudes might not be so bad were it not for leapfrogging, urban disintegration, and floating value. Leapfrogging is when developers jump over the next eligible lands for urban expansion, and build farther out, here and there. This has been a problem in expanding economies ever since cities emerged from within their ancient walls and stockades, but in our times and our country it has gone to unprecedented extremes, with subsidized superhighways and universal auto ownership and truck shipping.

Alfred Gobar has told us the amount of land *actually used* by city and suburban dwellers for *all purposes*. From this, he calculates that the entire U.S. population could live in the state of Missouri (68,965 square miles). That would be at a density of 3625 people per square mile, or 5.67 per acre. That is 7683 square feet per person. On a football gridiron, this is the area from the goal to the 16-yard line.

He is not being stingy with land, at 3625 persons per square mile. The population density of Washington, D.C., is 10,000 per square mile, with a 10-story height limit, with vast areas in parks, wide baroque avenues and vistas, several campuses, and public buildings and grounds. This is also the density of Whitefish Bay, Wisconsin, a well-preserved upper-income residential suburb of Milwaukee, with generous beaches and parks, tree-lined streets, detached dwellings, retailing, and a little industry. San Francisco, renowned for its liveability, has 15,000 per square mile. More than half the land is in non-residential uses: vast parks, golf courses, huge military/naval bases, water surface, industry, a huge regional CBD, etc., so the actual residential density is over 30,000 per square mile.

On Manhattan's upper East Side they pile up at over 100,000 per square mile. They do not crowd like this out of desperation, either. You may think of rats in cages, but some of the world's

wealthiest people pay more than we could dream about to live that way. They'll pay over a million dollars for less than a little patch of ground: all they get is a stratum of space about 12 feet high on the umpteenth floor over a little patch of ground they share with many others. They could afford to live anywhere: they choose Manhattan, they actually like it there!

Take 10,000 per square mile as a reference figure, because it is easy to calculate with, and because it works in practice, as noted. You may observe and experience it. At that density, 250 million Americans would require 25,000 square miles, the land in a circle with radius of 89 miles, no more. That gives a notion of how little land is actually demanded for full urban use. It is 9.4% as big as Texas, 4.2% as big as Alaska, and 7/10 of 1% of the area of the United States.

And yet, the urban price influence of Los Angeles extends over 89 miles east-south-east clear to Temecula and Murrieta and beyond, at which point, however, it meets demand pushing north from San Diego. *Urban valuation fever thus affects much more land than can ever actually be developed for urban use.* Regardless, most owners come to imagine they might cash in at a high price, with high zoning, at their own convenience, with public services supplied by "the public," meaning other taxpayers. This is the meaning of "floating value."

If their land is downzoned for farming, open space, or habitat, they regard it as a "taking," and plead the 14th Amendment. Once we buy into the Sanctity (Holiness, Sacredness) of private property, we owe them. If we think of the public's buying large quantities of it to preserve habitat or open space, the price is already high above its aggregate value, and the new demand will push the price higher yet.

Here is a case showing how this works. The Los Angeles Metropolitan Transit Authority (MTA) needed the old Union Station, northeast of downtown in a run-down neighborhood, as the centerpiece of its new, integrated mass transit system. With the decline of interurban passenger rail traffic, the old station was unused. The owners, mainly Southern Pacific, asked more than MTA offered, so MTA invoked its power of eminent domain and condemned the land. The case went to judgement, and in 1984 the court awarded SP an amount about twice the going price for land in the area. The court's reason was that the coming of mass transit would raise values around the new central station, and SP should be paid as much as neighboring landowners would be able to get after the station was built.

Thus, land originally granted to SP to help subsidize mass transit was used instead to obstruct and penalize mass transit. Private property had become an end in itself, Holy and Sacred, a welfare entitlement, rather than a means to an end. MTA (the taxpayers) had to pay a price for land based on the unearned increment that its own construction and operation was expected to create in the future.

Later, MTA was to stint on subway construction, resulting in subsidence on Hollywood Boulevard, but there was no stinting on paying off SP for doing nothing: the award came to \$84.7 millions. This is how the 14th Amendment works in practice, making private property an end, sanctified for its own sake, rather than a means to a higher end. It makes landowners the spoiled children of the national family, inflating the cost of every program that entails acquiring land. It means there is no chance that the public, whether through government or the Nature Conservancy, can preserve more than token areas of habitat by buying it: it would bankrupt us.

D. Siege mentalities

The result of sprawl and floating value and the Sanctity of Private Property and the 14th Amendment (as construed) is to put conservationists-environmentalists-ecologists under siege. Here is a sharp, clear statement of it from Vivian Null, San Bernardino Audubon Society.

"Once humans lived in small groups surrounded by expanses of wilderness. Today, human civilization has pushed our natural world into ever smaller, fragmented pockets of deteriorating habitat. As a result, we are living in an age of mass extinction."

I sympathize with the view expressed, and understand what outrages provoked it. When it comes to solutions, however, we have a problem. Being under siege fosters a siege mentality. "Science," for all its virtues, can also be an ideology. To the layman, self-styled "hard" Scientists can seem more hardheaded and hardball than scientific. They can seem single-valued, self-righteous, imperious, and - dare I say it? - even a bit arrogant at times. At the same time landowners also feel under siege. You know too well how developers feel about having their land set aside for Stephens Kangaroo Rats, Three-toed Lizards, and California Gnatcatchers. The ideology of Science and the ideology of Private Property have become clashing absolutes, no more able to come to terms than Kach Movement militants can

compromise with Islamic Fundamentalists. What can we do? It helps to read some history of the successful Conservation Movement of the Progressive Era.

III. Gifford Pinchot's Winning Formula

A. Defining "Conservation"

Gifford Pinchot was a great leader of the Conservation Movement. He defined his central term, conservation, as "The greatest good for the greatest number for the longest time." Caviling theorists sometimes pick at that famous phrase, since you cannot maximize three things at the same time, but that is unfair, since he was not being technical. He was making a speech, and obviously what he meant was that those three elements should all be considered, and none was to be slighted.

Notice especially the middle clause, for the greatest number. Conservation was not just for landowners, or any other elite. Conservation was part of the Progressive Movement, which had sprung from the Populist Movement. Social equity was at its core. Here is some more of Pinchot's speech (to the 1st National Conservation Congress, 1909):

... the third principle of conservation. It is this: the natural resources must be developed and preserved for the benefit of the many and not merely for the profit of a few. ... public action for public benefit has ... a much larger part to play than was the case ... before certain constitutional arrangements ... had given so tremendously strong a position to vested rights and property in general. ... by reason of the 14th Amendment to The Constitution, property rights in the U.S. occupy a stronger position than in any other country in the civilized world. ... it becomes then a matter of multiplied importance, ... when property rights once granted are so strongly entrenched, that they shall be granted only under such conditions as that the people shall get their fair share of the benefit which comes from the development of the country which belongs to us all. The time to do that is now.

You modern habitat-savers, your foes score points against you by calling you "elitists." Sure enough, you do appear a bit above, and therefore outside the mainstream, especially when you

talk down to people from the eminence of "Science." Pinchot saw that brick coming and dodged it before it was even thrown. He teamed up with the populists; he spoke as a man for the people, even if not quite of them. Can you say the same? Is there a place in your plans, and your hearts, for Joe Sixpack?

Look at the list that the Southern California Association of Governments (SCAG) has published from its recent public opinion survey of public issues. Preserving habitat and endangered species are not even among the top 17 priorities listed by citizens. Neither are private property rights. Their top three concerns are crime, education, and jobs. Politicians have preempted the crime issue, but no one is doing a thing this year for education and jobs. Take a leaf from the successful Gifford Pinchot: team up with some populists. Move into the vacuum left behind the gale of anti-crime oratory. No one is serving the constituency for education and jobs.

Other populist issues high on the SCAG list are homelessness, affordable housing, job training, and child care.

B. *Finding common ground*

On what basis shall habitat-savers identify with median Americans? We share a problem: we are all victims of private property rights carried to extremes. Abraham Lincoln, the original Radical Republican, once spoke to the effect that whenever landless people cannot find work and shelter, then the rights of private property have been carried too far and must be curbed. We have seen what Gifford Pinchot said.

"... natural resources must be developed and preserved for the benefit of the many and not merely for the profit of a few. ... the people shall get their fair share of the benefit which comes from the development of the country WHICH BELONGS TO US ALL."

Belongs to us all? Was Pinchot a Communist? Not likely: he was a Republican, a prominent politician, twice Governor of Pennsylvania.

We have too little time together to develop that fully, but here are some ideas. First, environmentalists might rethink what we mean by "open space." To Pinchot, "open" meant the space had public access. Today it often means the reverse: golf courses, duck clubs, sacred Indian lands, private beaches, cemeteries, farmlands, vacant speculative holdings, unpoliced parks taken

over by gangs, protected and posted habitat, water from which swimmers are excluded for power boats, rights-of-way closed to hikers, University experimental plots, and so on. In this sense, there is more open land in downtown Manhattan than in many of our rural and sylvan areas. Many a water reservoir is open to beavers, ducks and geese, who routinely "powder their noses" there, but not to humans who seldom do, and can be trained not to.

To get more support for habitat, find ways to open it to people, putting more funds and effort into behavioral controls if necessary. In Pinchot's day, people spoke unblushingly of "character training," and practiced it. Pinchot himself said, "the training of our people in citizenship is as germane to it (conservation) as the productiveness of the earth." Wilderness clubs preached and taught responsible behavior in the wilds. The Boy Scouts taught it, churches taught it, schools taught it, forest rangers taught it, camp managers taught it, community leaders taught it: you heard it all around, and it did help shape your character. It was a great community effort, enlisting broad support and conviction. Then, in that less mobile, less commercialized, more communitarian age, social control over public behavior came naturally. We came to take it for granted, until it silently slipped away. Today it may take more conscious effort, but it was done then, it can be done now.

Second, go with the flow for economy in government. For most of our lives now, we have looked to big government to resolve disputes by buying out both parties. We would have government pay top dollar for land, if needed, and then hire scientists to manage it for habitat. Thus, both sides dream of cutting into line at the government trough: but the trough is empty, and the taxpaying public is in a foul mood. Rather, let's look for ways to cut spending by curbing subsidies to urban sprawl. I shall return with particulars.

IV. Pinchot on "Development"

Gifford Pinchot, the father of Conservation, was not against developing land. In his own words:

"The first principle of conservation is development, the use of the natural resources now existing ... for the benefit of the people who live here now. There may be just as much waste in neglecting the development and use of certain natural

resources as there is in their destruction by waste. ... Conservation, then, stands emphatically for the use of substitutes for all the exhaustible natural resources, ... (water power and water transportation are his examples). ... The development of our natural resources and the fullest use of them for the present generation is the first duty of this generation. ...

In the second place conservation stands for the prevention of waste. ... "

So Pinchot was against waste, so what? Who isn't? This could be just a banality, but he gives it a new turn. To him, waste means failing to use renewable resources. His example was hydropower, which he would substitute for coal and oil. That is not such a good example today, when we cherish our few remaining wild rivers, but today urban land makes an even better example.

"Urban land?", you may ask. "What has urban land in common with falling water?" Economists (who are not all bad) classify urban land as a "flow resource." They liken it to flowing water because its services perish with time, whether used or not, and we are trapped in the one-way flow of time. Likewise, urban land is not depleted by use. It is an even better example of a "flow resource" than flowing water itself, because, as we are so conscious today, "unharnessed" flowing water may have other downstream uses. Even in wasting out through the Golden Gate, it may repel salinity. The unreaped harvests of idle land, however, flow down the river and out the gates of time into the past like lost loves dimming, and golden moments passed beyond recall.

What is this "service" of urban land, that we should be mindful of it? For one thing, using central urban land conserves all the hydrocarbons and other resources otherwise needed to traverse it. Compact urban settlement is a direct substitute for oil, with all that implies - and it implies a great deal, which I will leave you to fill in.

Second, using good central land saves all the costs of settling on other land - including the cost of taking more of the shrinking habitat from endangered species. Therefore, habitat-savers should emulate Pinchot and favor development in the right places, the better to oppose it in the wrong places. *This is the great lost secret of conservation* our times have forgot. You cannot beat development by opposing it everywhere it pops up. People need land for all kinds of legitimate things, and they will have it. To stop urban sprawl, you must support compact,

efficient urban development, including healthy, timely renewal of older cities, inner suburbs, and neighborhoods.

V. Urban Sprawl

We have met the enemy, and it is US (Urban Sprawl). Let's analyze this beast, US.

A. Development is not identical with Sprawl

Many people carelessly equate urban growth and urban sprawl, but they are not the same, not at all. Cities may grow like the posh upper East Side of Manhattan with 100,000 per square mile, or San Francisco with 15,000, or Riverside, California with 2500, or Oklahoma City with 734. Metropolitan regions are even more varied. We have seen that 250 million Americans could fit nicely into a small part of southern California, were it compactly settled at moderate urban densities that are actually found in practice, as in the upper middle class suburb of Whitefish Bay, Wisconsin (10,000 per square mile).

Urban sprawl, which creates a psychological effect of great crowding, is not the product of development as such, but of leapfrogging. Leapfrogging means development in the wrong places. Infilling, on the other hand, is anti-sprawl. It is the cure for sprawl.

B. Sprawl is not a quest for open space

A common belief is that the search of open space is the main force behind sprawl. You may test that by observing high density, cookie-cutter subdivisions scattered throughout the land. *Within* each such development, you are living at downtown densities. It is when you get onto the freeway to commute, or shop, or take the kids to school or the dentist, or worship, that you experience open space. You experience it as a negative resource, an obstacle between where you are and where you want to go.

C. Sprawl is not the product of free choice

A favorite fallacy is that sprawl results from free individual choice. In fact, sprawl results mainly from subsidies to sprawl, enforced through taxation and/or utility rate regulation. Thus it is imposed, not freely chosen. The classic case, which exemplifies the whole genus, is postal service. It

costs you 29¢ to send a letter across the street downtown, or from rural Idaho to rural Florida. The generic name for such subsidies to sprawl is "postage-stamp pricing" (a species of spatial cross-subsidy), which gives you the idea.

In British Columbia, people move around a good deal by car-ferry, because of the terrain. The Provincial Government ("The Crown Provincial") runs the system. There are many lovely little islands in the Straits of Georgia, between Vancouver Island and the mainland, favored by the wealthy, the exclusive and reclusive. Being more sybaritic than Henry D. Thoreau, and politically puissant, they have demanded and received car-ferry service. This service costs about \$10 for every \$1 in revenue. The resulting deficit is covered by raising rates on the main plebeian line, Victoria-Vancouver. Naturally, these cheap ferries attract new visitors to the islands, and new demand for land there.

D. Looking for Mr. Goodbar

Here is how we get urban sprawl with leapfrogging. Remember the last time you moved and went househunting? You saw some mouthwatering homes, but they were not for sale. You had to find motivated sellers, and pick from what they offered. It's the same with builders. They scour the exurbs seeking motivated sellers. Ideally the most motivated sellers would line up by distance from the existing city, but the market is not ideal. Each seller is moved by his personal circumstances, not the geographical location.

Potential builders are little concerned with the social costs they might impose, so long as others are to bear them. Thus, they sometimes settle for and build on steep lands (like Malibu Hills) with flammable brush and erosion problems, on flood plains (like Victoria Woods subdivision in Riverside), on soils subject to liquefaction in quakes (like Northridge), in canyons and arroyos, on lands with limited access for emergency equipment. They even build on lands without water supply, even in arid southern California, then demand water and get it, secure in the knowledge that Sacramento rejected a recent move to ban development in areas with no assured water supply.

E. The public pays twice

Let's go back to those Channel Islands in British Columbia, with subsidized car-ferries. Naturally, as I said, these cheap ferries attract new visitors to the islands, and new demand for

land there. Developers and hopeful subdividers bid up land prices. This is not what the old settlers had in mind: their environment is threatened, including the habitat of endangered species. They appeal to the Crown, which subsidizes their ferries, to help them preserve land for habitat.

They want the government to buy some of it, paying the high prices created by the ferry subsidy, to keep it from use by people who might use the ferries. Thus the government would pay twice: to subsidize the ferries, and then to retire the land at the high prices made possible by the ferries. Failing that, they want the Crown to downzone most of it. The landowners are not charged when the ferries raise their asking prices, but demand compensation when downzoned.

Here, in microcosm, is the American problem with sprawl and habitat. Multiply that ferry subsidy a thousand times, and you have the Great American System of Public Works and Services for Private Gain. First the public pays to bring urban demand to remote lands; now the landowners, the spoiled children of the national family, demand to be paid again for downzoning or selling that same land to preserve habitat. They demand payment not to cash in on the opportunities we just gave them free.

Thus far, it is true, the courts have let us downzone without compensating. However, now a storm has gathered. Proposition 300, on the ballot in Arizona, demands compensation for downzoning - it is aimed at the Clean Water Act and the Endangered Species Act. There is a movement in Congress to compensate for any Federal regulation that devalues land by more than 50%. It is led by Congressman Billy Tauzin, a Democrat from Louisiana. You can imagine what a more conservative Congress might do. Speculative landowners may soon get everything they demand, leaving heavy debts to which their light tax payments now contribute very little.

F. *Proactive solutions*

How do we dig out from this one? I'll repeat: go with the flow of cutting public spending by cutting down subsidies to urban sprawl. They are a major source of the problem. We'll never win the environmental fight until those subsidies are withdrawn.

A second proactive solution is to motivate and help the owners of good land to sell or develop it. To help them, make infilling a positive goal. If you put impost fees on new

buildings, do so only in outlying areas that require new public services, not on new buildings that help renew places like South Central L.A. If you ration sewer hookups, save them for central land with street improvements already in place.

Those are the carrots. A good stick is also needed. We have seen how leapfrogging results from the scattered locations of motivated sellers. We can motivate sellers near-in, and in compact increments as we expand spatially, by raising land taxes there. Proposition 13 makes this difficult, but not impossible: many special assessments have the essential motivating quality of land taxes, with a different legal form, that exempts them from Proposition 13.

I could wax rhapsodic about the results to expect from such taxation, but have done so elsewhere and will leave it with a word: visit Sydney, Adelaide, Brisbane, Copenhagen, or Johannesburg, which have made use of this principle to excellent effect.

VI. Dig deep

These are basic issues, and call for bold actions. Do not waste your time on wimpish meliorism, or "Goo-goo" thinking. For example:

It is said we need a land use inventory. We already have lots of them: people have been classifying land for decades. The question is, what shall we do with them?

It is said we need "risk ratings." These are subject to manipulation and juggling, like benefit/cost analyses of recent ill fame. The question is, who will control the ratings, and to what ends?

It is said we need fire models. We have fire models, they were quite chic in 1950 already. The question is, how to keep scattered homes out of fire-prone areas, where they make prescribed controlled burning nearly impossible. The question is how to keep the State and the fire insurance industry from cross-subsidizing these homes by averaging their risks in with others.

Rather, let us study how to emulate the model of Butchart Gardens, near Victoria, B.C. "Butchart" doesn't seem to fit a gardener, and sure enough, Mr. Butchart was a hardrock miner who attacked the earth and left a great ugly gash in it. Ah, but

Mrs. Butchart, she wanted space for a garden, so she made one there. She rediscovered the truth that land is not just the matter that occupies space, it is space, always renewable and reclaimable. Now Butchart Gardens is one of the world's great beauty spots, drawing visitors from everywhere - in the summertime you hear every language there. Our decayed and emptying central cities, too, may bloom again like Mrs. Butchart's garden. Let us make it our model.