

IT IS A serious mistake to think that pollution is a necessary cost of central city density, and a limit on it. Open space generates a good deal of pollution directly, and more indirectly. Open space includes, for example, dumps and junkyards, parking lots, the aprons of drive-ins including gas stations, car lots, industrial open storage, mines, farms sprayed with pesticides, artillery ranges, airports, rail yards, and freeways. Large lawns in residential areas mean powermowers which destroy much of the peace and quiet sought in the seclusion of the large lot. They imply weaker social controls over adolescents with unmuffled vehicles, whose ability to penetrate the air seems to increase with the square of the distance from us. Vacant lots and acreage in urban areas, once defended as playfields for the innocent sports of childhood, now harbour acoustical vandals with motorcycles. Weeds grow uncontrolled, seeding the neighbour's lands. Sidewalks go unshovelled in winter and some day the fields are sold for tracts so the community that relied on them in lieu of parks goes without.

The indirect effects of open space are polluting because open space has to be traversed, and transportation is the greatest polluter, especially when we include stationary sources that serve transportation demands, like oil refineries. Land reservations near the central market do not really create open space, they rather relocate it. That is, they destroy it elsewhere. As settlement sprawls outward seeking unreserved space, the sprawl process destroys more than it reserves, for to reach the remote sites people drive further using more roads and cars, both of which require vast space themselves.

Some open space has positive edge effects, notably certain exclusive golf courses. But, cemeteries—which, in Milwaukee, occupy more space than all industry—have a demonstrable negative effect on values across the street, especially commercial ones, while industrial plants have demonstrable positive effects. Both these effects stood out clearly in an intensive study of land values in Milwaukee which I performed with data from 1958 to 1965. Parks, which used to have positive effects, are changing more and more into nuisances with the modern decline in public behaviour and social controls.

Pollution, therefore, does not place a limit on urban compactness and agglomeration. Clean environment is a complement of intensive urbanization and not a substitute.¹

Individuals, neighbourhoods, and small communities find some refuge in large lots and the preservation of vacant acreage roundabout. It would be a fallacy of composition, however, to generalize from these subsystems to the whole system. Since most people are more aware of neighbourhood subsystems than whole metropolitan systems, this fallacy is

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widespread. But, at best, low density enclaves export pollution, beggaring their neighbours. In the process, they create much more in view of the effects on metropolitan circulation.

OVERALL, therefore, land use controls are a small part only of the antipollution effort. They are no substitute for direct action against polluters. Public policy at the state and federal levels should discourage local policies of reducing pollution by dumping it on others and encourage direct action against polluters. We are undergoing in our generation the prolonged cultural shock of accepting this necessity with its limitations on our license.

Government landownership does not hold much promise of solutions when we look at the record. Public behaviour in public places is often controlled by Gresham's Law since so much offensive behaviour is below the threshold of legal and social control. The police have not succeeded in making highways and streets pleasant neighbours. Military bases and the TVA are among the polluters least responsive to victim protests, but government officials are responsive to the demands of motor-cyclists who are allowed extensive access to federal lands administered by the Bureau of Land Management.

On public waters, motorboats receive more protection from state laws than those wishing not to be

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the victims of noise pollution. The operating principle is that the ownership of an expensive vehicle carries with it the privilege of pre-empting more public space than is allowed to the simple pedestrian or swimmer. An attack on the offending vehicle by the naked victim would be a crime against property, while the constant assaults of the vehicle on the victim are unpunishable.

It is not, therefore, the weakness of government but the mindless attitudes of the government and the people that are at fault. The attribution of power and prestige and even affection to large polluting vehicles is at fault. A change in these attitudes is thoroughly consistent with a return to urban civilization and an appreciation of the benefits of closeness. Closeness makes us more aware of each other and more considerate. It is easier to remonstrate with the person who blows smoke in your face than the one whose car blows exhaust in your air as he speeds away.

There is this idea that nature ennoble a man while cities degrade him. But face to face contact of unarmed individuals outside the shells of motorboats, snowmobiles, all-terrain vehicles, landrovers and other apparatus of being "close to nature", is the basis of civilized behaviour. In a compact group the burden of proof rather naturally slips from the victim to the polluter, where it belongs, and this is the most effective remedy. Pollution, then, is not a limit on closeness. It is, rather, a limit on the distance than can be kept between people while main-

taining some sort of civilized society. The solution to pollution is not dilution but control; and control, by whatever means exercised, is a natural by-product of the synergistic city.

WILBUR Thompson has labelled the city "a distorted price system."² Most mass systems which comprise urban circulation use consolidated accounts. This masks the fact that service to some places makes money while service to others loses it. The rich territory carries the lean territory, thus transferring rents from one to the other. In the process a great deal of potential rent is dissipated and destroyed by extending service to sub-economic areas which have to be subsidized. The overall patterns are primarily two: the centre is sapped to serve the fringes, especially ragged fringes; and high density areas are sapped to serve low density areas. This pattern of cross-subsidy follows simply from "postage-stamp pricing—that is, charging common rates regardless of location and different distribution costs. The bias is exaggerated by the impact of promotional rate structures which give discounts based on volume per metre, without regard to volume per unit of area, or distance from the load centres.³

City street systems, as an example, are priced by gasoline taxes. Yet, they are paid for by city property taxes while the gas taxes are used to extend long, narrow roads into lean territory for farmers and ex-urbanites. Commuters congest the city streets, pollute the city air, and sap value from the

real estate that finances these streets. Commuters by train strengthen a central city, but car commuters sap it.

Open space and low density land uses, in addition to increasing circulation costs, make less positive contributions to urban synergism. Cities exist to bring people together; open space holds them apart. Open space in its place is a joy, but it is not the best use of central city land, either for the individual owner or for the whole urban system. There is some small optimal need for open space even at the hottest 100% location, but it is there to enhance the used land, not as an end in itself; and its value needs to be demonstrated, not assumed. Remember, too, we are not questioning the value of open space, but the location. Every acre of open space in the central market destroys at least an acre elsewhere and usually much more.

The problem is not that government is weak but that government is perverse, for many reasons, including the dereliction of most (not all) economists and political scientists who have done too little to clarify these problems. Government regulation of utility rates guarantees a fixed return on aggregate invested capital without requiring that marginal extensions support themselves. This creates regulatory bias, actuating utilities to invest submarginally at their fringes to maintain their rate bases and justify higher rates to sap their centres. Where private sellers resist sub-marginal extensions, government often imposes a "duty to serve" which ignores marginal extension cost. Government subsidizes or requires the subsidy of rural extensions in countless ways. Governmental power imposes zoning which interdicts rent-generating high density.

Legislatures instinctively impose territorial cross-subsidy in the process of legislative logrolling. It results from seeking to equalize benefits in kind rather than by money payments, without regard to efficiency (something that legislatures traditionally under-value).

Strong government, rather than helping solve the problem, is making it worse. Where ignorant armies clash by night, nothing is gained by more fire power. The growing dependency of cities on federal largesse creates more and more benefits to landowners with no corresponding obligation to pay. This means more logrolling in city councils. In addition, it raises logrolling to higher levels. Cities, regions and states compete at the federal trough.

The only workable remedy has to involve recoupment from beneficiaries, mainly through taxation of the unearned increment of land values. By this means, government recoups its outlays, those who get none are not injured, and landowners will stop demanding sub-economic extensions. Wasteful cross-subsidy only develops to the full as a species of equity in kind among competing landowners once they have

established a system of taxing sales and income to support land values, and a system of state and federal subventions to local governments. Take these away and cross-subsidy among places will lose major support.

Taxing land values, which is popular among economists, may be viewed as a means of making compensatory payments in money rather than in kind. It lets planners go ahead and favours some areas over others, developing neighbourhood specialization and differentiation such as the urban promise requires. Central rents are then redistributed in money through the tax system rather than as now in kind through cross-subsidy. This solution has the added benefit of being compatible with a free market in land and, indeed, I would say necessary to lubricate the market for optimal performance.

THE SYNERGISTIC city carries the seeds of its own destruction when its high central and speculative land values attract absentee owners. The absentee owner neglects civic duties, the many unpaid services people do for each other out of public spirit, social pressure, mutual cooperation, and enlightened self-interest. He may not even be a person, for many absentees are estates and institutions. He spends his income elsewhere and he may pay most of his taxes elsewhere, too. He does not contribute to community chests, churches or service clubs. If "he" is a multi-national corporation, he is disposed to put the branch plant on and off standby for the convenience of the corporate centre. Buildings deteriorate and employment declines. Much of this has been documented in Jon Udell's remarkable study of the merger movement in Wisconsin.⁴

Many a central business district has gone to seed because its absentee owners milked their holdings and failed to get together to make timely response to the challenge of suburban shopping centres. The research of Joseph Monsen in San Francisco identifies estates as the worst drag on CBD redevelopment, causing outmigration of business to new districts.⁵ Estates he finds are quite inactive, seldom selling properties, and accounting for little new construction even though they hold large areas.

The effective medicine for absenteeism is the same as for cross-subsidy. Cities can build fires under derelict owners by levying taxes based on the value of their land. These will impact differentially hard on absentees because the ratio of land values to buildings is in general higher for absentees than residents.

1. cf. M. Edel, *Economies and the Environment*, Prentice-Hall, 1973.
2. W. Thompson, 'The City as a distorted Price System', c. 1970.
3. P. Downing, ed., *Local Service Pricing Policies and their Effect on Urban Spatial Structure*, Univ. of B.C. Press, 1977.
4. J. Udell, *Social and Economic Consequences of the Merger Movement in Wisconsin*, Madison Graduate School of Business, 1969.
5. J. Monsen, 'Who Owns the City', *Land Economics*, 1961.