

The Synergistic City: Its Potentials,
Hindrances and Fulfillment

by

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A Paper for the Colloquium on Land Policy

The Lincoln Institute
Cambridge, Massachusetts

October 28, 1977

To be published by The Lincoln Institute and
Judith deNeufville, editor

The object of human organization is synergy, combining parts into a whole greater than their sum. Large organizations seek synergy in hierarchy and financial controls. Cities achieve it by bringing independent actors into mutual access so they can cooperate via free contracts and association in the marketplace, in government and society. This paper purports first to show how market allocation of land operates to foster urban synergy. It seeks to define the elements of synergy as follows. The synergistic city maximizes access to the resource features that determined the city's location. It maximizes mutual access among residents and visitors. It lets them share common costs. It encourages specialization. It increases competition. It maximizes options. It

increases flexibility. It pools and diversifies risks. It facilitates innovation. It nourishes and spreads information, culture, education, and discovery. It is a medium in which small businesses can flourish through mutual aid.

Second, the paper treats hindrances to realizing the urban promise. There are parasitic and sapping land uses which prey on the surpluses generated by synergy and weaken the city. Polluting uses are one. Then, there are land uses which are cross-subsidized in mass systems. Absentee ownership may be parasitic. Crowding the lot lines may sap value from neighbors. Some land uses demand more than their share of the social infrastructure and overload it. Old buildings sap value from new ones. Unused land breaks up urban synergism. Some land uses appear parasitic because they benefit from redistributive taxation. Some uses are too self-contained to participate in a synergistic city.

Third, the paper recommends policies for discouraging the sappers and encouraging the mutually nourishing land uses that can potentially bring cities to full flower and make our cities the best of all human environments.

THE URBAN PROMISE AND THE LAND MARKET: THE CITY THAT
MIGHT HAVE BEEN AND MIGHT BE

The Neo-Classical Rationale for the Urban Land
Market -- A Reminder of Old Truths

There has long been a tolerably developed rationale for the function of the urban land market. Land rent is the return net of all costs, and market forces drive land to the use yielding the highest net rent. High rents in good locations reserve land from lower uses in order to make it available for higher ones. The dollar as a measure of benefits and costs is much more comprehensive and well balanced than single-valued alternatives touted by many critics of the market. Some of these are agricultural fundamentalism, highway imperialism, elitism, naturalism, alleged "needs" and engineering "requirements" (regardless of price), and various theories of value based on labor, energy, residuals' generation, export earnings, open space, and judgments about distributive equity. The market rationale may be found in neo-classical writers like Richard T. Ely, George Wehrwein, Richard Ratcliff, Homer Hoyt, and Arthur Weimer. A related group, the location theorists, have given special attention to the importance of minimizing transportation costs. They have shown that when land goes to the highest bidder the result is to minimize society's aggregate transportation burden. Location theorists have observed an artificial

distinction between "urban" theory which asks at what point things are located and "agricultural" location theory which asks also how much land is to be used. "Agricultural" location theory is obviously misnamed, and of paramount importance in cities.

Although some location theorists have no doubt overstressed minimizing transportation costs, most have remembered that other location factors are important too, such as bearing strength, drainage, air quality, and so on. Demands and costs expressed in money make these different values commensurable.

Rents on good land do not drive people away unless inadvertently by being set too high for anyone. In general, charging rent forces land to be used intensively. Rent drives away lower users only to save land for higher ones. Occasionally even good economists lapse into a confusion of the distributive and allocative effects of rent. Distributively, rent neutralizes the advantage of a good location from the user's point of view, since the landlord charges what the land is worth. Allocatively, however, paying this rent does not inhibit land use but the contrary, it forces intensive use.

Some Underemphasized Aspects of the Neo-Classical Rationale for the Urban Land Market

There is a weakness for scholars to bounce the same ideas back and forth and overwork a few parts of The Great

Conversation, neglecting equally important matters. While the following points are touched upon in the literature they do not receive proper attention. Yet, they are implied by the neo-classical rationale and might fairly be considered part of it.

Compacting and Centripetal Forces

Land values are marked by continuity in space, both concentric and axial, resulting in a kind of star-shaped pattern. The call of the market is to develop land adjacent to land already developed, rather than to leap-frog. This strong clustering propensity results in great economy of all area-sensitive costs. Many public and semipublic costs are functions of area served rather than population served. There is fire protection, especially brush and wildland fires; drainage and flood control; pest control; aquifer recharge; refuse disposal (because of the need for disposal sites); air quality control; protection from noxious land uses; noise control, like protection from runways; access to all breaking points where trunk transit is converted to local transit; access to the urban growth pole; access to government; circulation networks and collection and distribution networks of all kinds; access to any specialized service or facility; radio spectrum coverage; and so on.

All these factors are interacting and reinforcing. Compact settlement caused originally by one factor, say

common water supply, creates the precondition for economical provision of other public and private services requiring a compact focused population. Each trip may now serve more purposes. Mass transit and foot transit may replace individual vehicles, and the more so as each linkage requires a shorter trip. High rise buildings develop the third dimension of the city with vertical transportation providing additional linkages without loading the streets. Increased central tendency reduces cross traffic. Increased volume at the center makes it more economical to bridge and pierce natural barriers there, thus increasing mutual access. Load factors increase on all capital facilities, spreading the costs around the clock and calendar. The need for interurban travel and freight movement is sharply reduced as the larger city becomes more self-contained.

In recent years there has been increasing attention to the costs of sprawl and, by implication, the gains of compact settlement.¹ Both the friends of sprawl and the enemies of the market have sought to attribute sprawl to workings of the market; but sprawl results from distortions and subsidies in the market rather than a fair market. Recent studies have emphasized how sprawl wastes time and wastes capital. Future studies will certainly emphasize how it wastes energy. A free market would have and still would spare us from energy-intensive settlement patterns.

Another important market function is to coordinate and synchronize private investment with public investment. Public spending on streets and associated capital gives value to privately-owned lots. It is to secure the latent rents from these lots that owners improve them, thus preventing the public investment from lying waste. This process works even better if the public raises land assessments at the time of investing in streets, thus building a double fire under the landowner. Synchronizing private response to public investment saves the public paying interest on unproductive capital by putting it right to use. Anticipating this economy, public agencies can plan their infrastructure better: they can build short lines of high capacity serving small compact areas fully, rather than long lines of low capacity, making service available to large areas most of which will not be developed for some time.

A most important effect is the mutual reflection of external gains. The improvement of lot A enhances the rentability of lot B, motivating its owner to improve it even more. The greater improvement of lot B in turn enhances the rentability of lot A, and so on back and forth. Anticipating this effect, each owner may very well improve to a higher level than he would if he lacked confidence that the other owners would be improving. If this process works right, it has somewhat the same effect

as "internalizing externalities," an advantage sometimes thought to be peculiar to planned unit developments (PUDs). Here is perhaps the greatest and most subtle beauty of the well-functioning synergistic city. It achieves the gains of scale without the costs of scale. It gets atomistic individual landholders working together without crushing their individuality in a large organization. It lets there be association with independence, without hierarchical control. To pull individuals together without crushing or regimenting them is surely the highest aspiration of human organization.

The result of all this constructive interaction is urban synergy which means there are increasing returns to the city collectively, even while each individual land parcel is used in the stage of diminishing returns. Realizing the potential of increasing returns calls for skill on the part of city government as it supervises urban circulation, because the returns are not to gross mass of population but to mutual access. They are realized most strongly at points of maximum access, urban nuclei of maximum intensity and maximum land value from which both intensity and land value taper off at a steep gradient.

Sheer size is important, however. William Alonso summarizes his findings "In every country for which I have found evidence, local product per capita ... rises with urban size, and where comparable figures on cost are available, these rise far more slowly if at all."²

The philosophical proof of increasing returns is that urban land values rise without taking anything from the returns to other inputs, capital and labor. The free flow of capital and labor among regions keeps their risk-adjusted returns at more or less common levels throughout the economy, and indeed wage rates are somewhat higher in bigger cities. So urban rents and land values do not rise because city landlords have any superior formula for exploiting labor. They rise because urban land is more productive. This premium productivity is a kind of "free lunch" generated by social and economic progress and the spillover benefits of good mutual access. Its very existence testifies to increasing returns in urban growth and organization. Alonso might have added to his data the evidence that land values per capita tend to rise with city size, too, a fact we can never explain if we focus only on the faults of cities.

Institutional Bias: Government Failure and Market Failure

Some leading neo-classical urban land economists let themselves be drawn into the role of "explainers" who not only analyzed but had to vindicate everything that happened. This leads to defending the indefensible and, finally, to disrepute. We need to understand how a fair, unbiased market would work but we also need to understand the market is rarely free from bias. Part of

what an observer may dislike about market choices he needs to accept and simply say he was outvoted by the preferences of others. Other things about the market one may properly lay, however, to unfair bias. The part of wisdom is to learn the difference.

One form of government failure is in its manner of levying taxes. Urban synergism generates taxable surpluses obviously, and generations of economists have identified urban rent as a splendid taxable surplus. But when taxes vary with the use to which land is put they bias land-owners in favor of the use taxed more lightly. Another failure of government is bad planning of urban circulation. The general bias is towards cross-subsidy within the consolidated accounts of city public works departments. Another government failure is dereliction of duty to control pollution or, almost as bad, controlling pollution in capricious and irrational ways.

Then there are market failures. A conspicuous bias in the bidding for urban land is the differential power of accumulated wealth to put up front money. Wealthy individuals, wealthy corporations and large financial institutions have a special advantage in any investment that requires much "patient money" that can wait a long time for a large payoff. This means holding exurban land for appreciation. It means assembling land for large integrated developments where "externalities may be

internalized." It means holding land around operations with growth potential "for future expansion" -- maybe. Neo-classical explainers have seen these phenomena as part of the best of all possible worlds and thus given arms to market critics who see the whole thing as a conspiracy of the rich against the poor. They have failed to forearm market supporters against the siren song of planned unit development, and failed to draw a clean clear line between functions properly private and those properly public.

In the following pages I will use the term "fair market" to mean a market free of institutional bias both public and private. "Free market" has come to mean a market without price controls but that is not enough. To serve society a market must be free of bias: a fair market.

Timing

The explainers missed the mark badly in their treatment of timing land developments as they sought to rationalize land speculation. Ely's theory of "ripening costs" made a virtue of holding for the rise, and overlooked or accepted the institutional biases that carried it to excess. Economists in other fields have developed the concept of maximizing present value as a guide to timing investment and replacement decisions. Real estate professionals use the concept of maximizing discounted cash flow as a standard guide. Still lacking is any global demonstration that the sum of individual timing choices leads to a system optimum. In the highly interdependent business of land use succession in urban neighborhoods, the land uses are interdependent but the individuals are

wrapped in the cocoons of their personal income tax circumstances and credit ratings. What is needed is not a rationale since the results are indefensible. What is needed is a formula for institutional reform to make the market work better.

The Elements of Increasing Returns

Urban synergy has been called a black box by some and an empty box by others. Let's itemize its contents.

Access to Key Resources

Cities locate originally on harbors, railheads, crossroads, hubs, confluences, crossings, water sources, amenities, capitals, and so on. Good circulation focuses access on these features and aids their further development.

Mutual Access of Urban Dwellers and Visitors

Those who cluster around the original attracting resource find and create a supplemental attraction in each other. Sometimes they may degrade the original amenities like the clean air of Los Angeles, yet create artificial amenities like Disneyland which we may ridicule and yet which attract still more people. Markets and storage facilities develop synergistic relations with each other, leading to manufacture, innovation and tertiary services. Beyond the commercial and industrial convenience people cluster for social, educational and cultural reasons. Access is mutual so clustering is self-reinforcing over a long stage of increasing returns.

Sharing Common Costs

There are common costs of developing basic locational resources; of local consumption facilities like utilities

and services whose optimal scale is large; of common supplies needed by many producers; of bringing in buyers who will support many sellers; and so on.

Allowing Higher Specialization

The division of labor, said Adam Smith, is limited by the extent of the market and the same is true of the division of buildings, equipment and inventories. The same is true of urban land which may also specialize. The extent of the market is greatest where access is best. Everyone can supply his own examples of specialized people and machinery. Specialized land refers to neighborhoods like a carriage trade shopping center, or furniture district, or Vieux Carre, whose development attracts a particular clientele or supports the development of specialized facilities like unloading cranes in a port. Large markets permit large scale production, of course, but equally important they support specialized production by small sellers who serve a minute part of the total market. Variety of sellers and available goods and services foster specialized and unusual and innovative manufacturing which requires a variety of small inputs on tap in one place. Specialization in the simple sense of monoculture is found in many company towns and small cities. It is specialization in the sense of variety and diversity that marks the large central market. Regional specialization in farm and other primary producing areas outside of cities presupposes cities as centers of exchange and processing and storage and finance, for which the city takes a large cut of the pie.

Whetting Competition

The conditions of workable competition, that is many sellers and many buyers, presuppose a central meeting place where many come together. Cities not only support varied facilities, but more of each. By competing these make the city more attractive and attract still more buyers and sellers, and the total effect spares consumers from monopolistic exploitation in many forms. Competitors seeking to differentiate themselves will be led to add choice and variety and innovation and improvement.

Although large markets permit large scale operations, the average size of firm in larger cities is smaller than outside them. It is in large cities that small independent firms find the infrastructure and support which they need to fill a small niche in a large economy. Specialization is not peculiar to large firms but to large economies. It is easier in the city to enter business with a small capital and less devastating to exit. Entry and exit are the life of competition. There is also a large labor pool for the small businessman and a large supply pool and a number of competing lenders. The large numbers assure him the continuity of service even though he does not control his sources, nor is he obliged to stick with them in the event his needs change. Small firms achieve the gains of vertical integration without losing their freedom, adaptability and speed.

Adding Range of Choice

A large central market brings a variety of services and products and facilities over the threshold of viability,

giving substance to "free choice." It also adds choice to social life and personal friendship. The courtship market is a very real and important phenomenon attracting young people to cities. The existence of many options makes the city a place for discovery. It is a place to learn, to keep "with it" for profit, education, excitement and enjoyment. The city as a big apple is a sort of collective public good like a library whose use by one person does not interfere with use by others. It is indeed the obvious place to locate public goods like libraries to maximize their exposure and, therefore, their value.

The central market also offers more choice in disposal of products. By-products may be used and put to higher uses where there are many buyers. Salvage and recycling of old parts and materials are central market functions. In lean territory, collection costs prevent otherwise economical salvage and recycling. The Navajo Indians, it is true, use every part of the sheep far from cities, but their isolation prevents the by-products entering into exchange and moving to the highest use; while in the city, the hides of worn-out dairy cows are tanned for leather and finally subdivided into grades and distributed to hundreds of specialty uses throughout the market area, always in search of the top dollar which is to say the use most wanted by consumers. The mutual interest that buyers and sellers have in access determines the amount each bids for land in particular places causing the market to locate activities for maximum mutual aid and synergism of this kind.

Promoting Flexibility and Adaptability

The central market with its backup pools of resources is the place where inputs may be combined and recombined quickly in the face of shifting demands and costs. Penalties for starting and stopping are lighter leading to faster turnover and replacement with embodiment of the latest knowledge in physical capital. Sub-contracting allows organizational flexibility. Excess diversified capacity accommodates variations in supply and demand. Peak needs for capital may be accommodated from the central pool and peak needs to invest surplus capital find many outlets. The slack is there for change, emergency, and innovation.

Pooling Resources and Risks

The flow of rivers varies much less at their mouths than their various tributary sources because offsetting variations are pooled. Likewise, central markets have an aggregate stability in spite of large individual variations. Load factors on large capital facilities are smoothed. Labor unemployment is minimized. Several family members may find suitable work within one market, minimizing needs to migrate. Inventory requirements are reduced because of pooled variations, increasing turnover and volume per unit of capital. Savers and borrowers get together through an elaborate financial apparatus. Control over capital leads to control over industrial organization -- a mixed blessing for the world, perhaps, but an advantage for the city.

Stimulating Creative Activity and Thought

Central markets serve an incubating function for new industries and techniques which require access to varied supplies and the stimulation of varied ideas. In primary producing areas monoculture breeds monotony and simple minds limited by the routines of just one industry and often, too, by the dependency of branch plant psychology. In cities, information and ideas from many sources and viewpoints impinging on one mind provide the stuff of creative thinking. Urban cliquishness and overspecialization and social stratification and strife limit the realization of this potential, but the potential is there.

Providing a Medium for Culture

The central market with its variety of people, resources and ideas is the medium for the flowering of education, research, entertainment, social life, cooperation, and advanced thinking. Periodic retreats from the tension and tyranny of fashion can also be creative, but the central market is the place where the idea generated anywhere finds its greatest exposure. The city is the stage for the fullest personal development and fulfillment in a social context.

Reciprocating-Reinforcing Spillovers

This most subtle synergistic effect gives small landowners in large cities the advantages of planned unit development without the heavy cost of stifling individual spontaneity in large organizations. Suppose, to introduce the point, that buildings could be heightened one story at a time. Owner A opens the scene with a three-story building

complementary to Owner B, his neighbor. Owner B responds with a four-story building which causes Owner A to go to five stories, and so on until diminishing returns call a halt to further heightening. In fact, height decisions can be made only once every thirty years or so, but the market tends to orchestrate the process by setting a level of land values that requires buildings of a certain height, with each builder anticipating the others. The market works best, of course, when lubricated by a stiff tax on land values. A planned unit developer to accomplish the same end would have to spend years and decades assembling land in secret, blighting a neighborhood to weaken holdouts and reduce his own tax costs while waiting. And the completed PUD, even if successful, would be isolated from the rest of the city and detract from the synergism of the whole by self-containment.

Facilitating Communication

Close personal association of buyers and sellers in central markets lets them read each other with a minimum expenditure on costly advertising and wasteful packaging and artificial preserving such as characterize modern merchandizing in our sprawled settlement patterns.

In summary, cities exist to bring people together for mutual aid. The land market when properly lubricated allocates land so as to support this basic urban function.

KILLERS OF THE DREAM: PARASITES IN PARADISE

Urban surpluses attract sappers the way blood attracts leeches. We now itemize these parasitic effects, picking up clues as we go as to whether we might best overcome them by perfecting the market mechanism; by government regulation of private land use; or, by increasing the power of large private landowners to plan and implement large unit developments.

Pollution

Polluting one's neighbors is sapping them economically. The polluter, in effect, appropriates an easement over the neighbor's property in order to help himself. I do not accept the idea that victims who strike back are equally demanding easements over the property of polluters, because they are not objecting to what is contained within the polluter's lot lines; they are objecting to what spills over. The Coase-Chicago proposal that victims negotiate with polluters over payments to cease and desist would, I believe, subject victims to extortion and be unworkable and inequitable. Where there are many polluters and victims there is no way to organize the market. Where there are few polluters and few victims, there is no way for the market to be competitive, even if we settle upon a definition of property rights before the bargaining begins. We here dismiss this approach to pollution control as an overenthusiastic overextension of the generally good case for free markets, and will seek other avenues for applying market solutions to the problem.

It is a serious mistake on the part of many and perhaps most observers to think that pollution is a necessary cost of

central city density, and a limit on it. Open space, in fact, 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 and PA systems, 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 harbor acoustical vandals with motorcycles. Weeds grow uncontrolled, seeding the neighbor's lands. Sidewalks go unshoveled 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 behavior 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.³

Individuals, neighborhoods, 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 neighborhood subsystems than whole metropolitan systems, this fallacy is widespread. But, at best, low density enclaves export pollution, beggaring their neighbors. 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 and its need to spend money and political effort to curb unreconstructible vandals by force and social control.

Government landownership does not hold much promise of solutions when we look at the record. Public behavior in public places is often controlled by Gresham's Law since so much offensive behavior is below the threshold of legal and social control. The police have not succeeded in making highways and streets pleasant neighbors. Military bases and the TVA are among the polluters least responsive to victim protests, but government officials are responsive to the demands of motorbikers 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 the victims of noise pollution. The operating principle is that the ownership of an expensive vehicle carries with it the privilege of preempting 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 ennobles a man while cities degrade him. But, in fact, 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 behavior. 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 that can be kept between people while maintaining 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.

Cross-Subsidy in Mass Systems

Wilbur Thompson has labeled the city "a distorted price system."⁴ Most mass systems which comprise urban circulation use consolidated accounts, masking 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 center 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 meter, without regard to volume per unit of area, or distance from the load centers.⁵

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 exurbanites. 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 centers. 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 favor some areas over others, developing neighborhood 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.

Absentee Ownership

The synergistic city carries the seeds of its own destruction when its high central and speculative land values attract absentee owners. The absentee owner, being absent, 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 center. Buildings deteriorate and employment declines. Much of this has been documented in Jon Udell's remarkable study of the merger movement in Wisconsin.⁶

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 centers. The research of Joseph Monsen in San Francisco identifies estates as the worst drag on CBD redevelopment, causing outmigration of business to new districts.⁷ 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; the ratio of land value to sales and income, alternative tax bases, must also be higher. Another useful reform would doubtless be a sunset law for unsettled estates.

Crowding the Lot Lines

When B crowds neighbor A's lot line, he may trespass on A's psychic territory by blocking his view and exposing him to noise and odors. He increases the potential for conflict between A and B, and if A backs away then B preempts some of the open space which A pays for. B is likely less wealthy and many Bs will crowd community infrastructure which a few As may have paid for already. This kind of parasitic effect is the one first and last perceived by many people. It appears to put a limit on closeness and, hence, the realization of synergism. It leads to zoning whose major thrust is to limit density, and which, where misapplied, becomes itself a major obstacle to the synergistic city.

The problem in the aggravated form that we know it today is largely the product of leapfrogging. The aggravation occurs mainly during land use succession where a high density use is invading a low density zone. If cities grew compactly and sequentially, if apartment districts and commercial districts did the same, the problem would be de minimis. At its best, indeed, the spillover effect is beneficial. It can help to synchronize compact succession of land uses. This is most evident where new apartments are invading an old slum area for example. It is leapfrogging that makes this problem so widespread and aggravated with the constant mixing of incompatible uses. Leapfrogging turns temporary successional phenomena into permanent threats without much redeeming grace.

The universal and single-minded remedy applied to this problem is low density zoning. Zoning at its best could be

helpful where applied intelligently based on analysis of a whole metropolitan system. It could contain leapfrogging and increase pressure for infilling. Zoning which limits density could actually often increase density by obviating defensive buying of excess land by individuals seeking to preclude the worst possible spillovers from Kallikak neighbors.

Zoning in practice probably worsens leapfrogging because it is the product of episodic political pressures rather than systems analysis. Zoning keeps many near-in areas at low density. It often limits access to the most desirable amenities like the lakeshore bluffs of north Milwaukee or the California Coastal Zone, forcing population to concentrate in less desirable areas. In newer areas with looser zoning on the other hand, there is a strong preemptive motive to build at high density and establish one's future grandfatherhood before low density zoning blankets an area. When the zoning does come, there is a strong incentive to receive a capital gain by breaking it through inveigling councilmen of grey ethics and expedient ideology. Between developer-financed councilmen overstimulating building in some jurisdictions, and citizens of exclusionary bent closing down others, the market is shouldered aside as the arbiter of land use choices.

A proper and limited objective of zoning would be to maximize the joint value of contiguous lands -- let's say two contiguous parcels. A showing of damage by B to A is not enough reason to limit crowding. A may be more damaged by losing his reciprocal right to crowd A. Thus a suburban village might impose minimum lot size of five acres, as River

Hills, Wisconsin, in fact, does. The result is a remarkably low value of land per square foot, evidenced by actual sales. Here the owners are mutually damaging each other much more than if all could divide into small lots. (As a coordinated holding action for later synchronized succession with short-term minimization of county taxable values, the policy might make sense, a point not pursued here.) The rule of maximizing joint value is consistent with and implied by Michelman's fairness test: requiring one to bear a loss is fair if the policy applied to others is likely to help him more.⁸ If we could "purify" zoning and the motives of its practitioners we would end up with something like this -- not like River Hills.

But, zoning which focuses on building positions probably misses the main mark. Demands for psychological space are culturally determined and highly flexible, not only from culture to culture but among regions. Much more objective is the factor of noise and noise trespass. A concerted campaign to control noise with appropriate legislative changes would do much more than holding our neighbor's walls so many feet distant. Proximity is almost totally harmless if the neighbor is quiet. Noise control would accomplish the desired end of privacy, peace and quiet without the enormous resource costs in land and capital required by low density zoning.

Another aspect of the small lot-large house problem is the ticky-tacky tract -- the most common kind of Planned Unit Development, incidentally. Cookie-cutter subdivisions provoke feelings of nausea in most beholders, provoking great resistance to density. But, why must tracts be so repulsive? Before

World War II subdivision of land was one function and building houses was another, as a rule, meaning we got custom homes in tracts. Many attractive older middle-aged neighborhoods remind us of this era. What went wrong? The killer of the dream was the lot speculator. To overcome him postwar builders turned to tract housing.

Besides lending itself to depressing uniformity, tract housing lets private landowners lay out the public streets. Attorney John Murphy of Baltimore is campaigning currently for a return to public street planning, including initiative in subdivision, and integration of subdivision streets into total urban systems. This seems to me the right way to go and it can be made to work by synchronizing private response to public investment by laying heavy annual land taxes on improved lots. Exempting building values from property taxes would also reduce the pressure to skimp on building quality.

Another way to protect the lot lines is to let buildings rise higher. The very pleasant tree-shaded Milwaukee suburbs of Shorewood and Whitefish Bay support population densities of ten thousand persons per square mile, mostly on fifty-foot lots with two-story houses. The second story is important. The post-war rambler precludes any such density unless the house covers the whole lot.

Going above two stories, and perhaps even that high, builders meet diminishing returns to height as they, in effect, substitute capital for land. In addition, as they go higher some one-third of their capital cost consists of building the utility core of a high-rise building to provide vertical

transportation and circulation. These substitute for the horizontal public systems but do not receive the same subsidies. On the contrary, they are taxed. The property tax on buildings, where heavy, raises the cost of substituting capital for land and discourages utilization of the third dimension. This forces buildings to spread laterally and gobble up curtilage or open space. This becomes part of the argument, then, for exempting buildings from the property tax and focusing on land values instead.

Multi-story buildings are notably cheaper to heat per cubic foot of usable space than ramblers. Collectively they reduce energy use in transportation by increasing density. So, if our institutions do not bring us back to multi-story building the energy crisis will, and in a much less pleasant manner. Nature has her own ultimate penalties for those who defy fact and geometry. But a happy by-product of an energy catastrophe, if it must come, would be a rediscovery of the synergistic city which we are losing by wasting energy.

Overloading the Public Services

Any under-priced public service invites expansion of dependent land uses. "Services" include access to public capital like streets and highways, public land like parks, and public resources like water.

Example number one is the auto-oriented land use. Vehicles are generally exempt from property taxes and they occupy mainly bare land with minimal taxable buildings. The result is a large bias towards expansion of car lots, drive-ins, driveways, carports, gas stations, parking lots,

outlying shopping centers, cars and campers parked on lawns, junk yards, trucking terminals, and so on, with a big competitive advantage to richer employers who can afford all the bare land for employee parking. These tax-exempt vehicles give one privileged access to the astronomical public investment in streets and highways along with license to pollute the air and the airwaves over adjoining private land. The vehicles give knight-in-armor dominance over peasants on foot or bicycle. The capital and land in the highways themselves is tax exempt, and powerful trucking lobbies keep increasing the allowable truck size and weight and forcing greater spending on wider, costlier highways. Outlying and scattered land use is also more auto-dependent: it overloads busy streets and also requires new roads be extended for it alone.

Streets and roads themselves take vast lands, too, and mega-capital to pave. Private vehicles are "appropriative capital" -- a class of capital that serves its owner to occupy and control a piece of the common land. Thus autos and trucks cause expansion not just of private but also public auto-oriented land use.

Other "appropriative capital" items are boats, portable radios, cigars, aircraft, beach umbrellas, water diversion weirs, and water wells. The last two, under our appropriative approach to water law, result usually in underpriced water, which in turn subsidizes water-intensive land uses to expand. These are lawns, cemeteries, farms, and golf courses, all more scenic than Exxon aprons but equally anti-synergistic. And

they sap the community's limited water sources.

Any community with amenities open to all has cause to regard new residents as sappers of these amenities, in which all residents have a species of equity (even though the amenities may have been acquired without cost historically). Sellers of raw land capture some of this amenity value each time a new development occurs.

Tax-exempt land users, of course, are encouraged to occupy more space and more valuable space than if they were taxable, and to support their physical plant munificently while they may starve their employees. With due respect, there is something absurd about a church requiring a prime downtown location to serve a handful of people for a few hours a week and to withdraw from the life of the city behind walls designed for the needs and tastes of a generation long departed.

Young parents, from a parochial view, are parasites because their children crowd the schools. Fear of school taxes is a major source of support for exclusionary land use controls which break up urban synergism. The solution here is clearly that the state which mandates compulsory schooling should also support it. This, of course, is the thrust of recent court decisions and will gradually be implemented. It is important that the support go to the parent or child as such, however, and not to the local government as such, for the latter could support the governments without creating an incentive to accept school children. It is also important that the property tax be shifted to the

state level along with fiscal responsibility for schools.

Land uses harboring welfare cases evoke similar antipathies; but these have had less effect on land use controls because welfare cases live in old houses with grandfather clause protection. It is institutionally easier to oppose new building than demolish old, although the victims of "urban removal" know that the latter is also possible. Again it is a good principle that the state should finance welfare which the state mandates. Cities and counties preaching this text have not been willing to relinquish their monopoly of the property tax, which seems the reasonable counterpart. A state property tax together with a state assumption of redistributive spending would go far to mitigate the indefensible aspects of exclusionary local policy.

To overcome the present privileged standing of vehicles is a long-term job calling for concerted state, local and federal action. We must tax vehicles much more and buildings much less. Vehicles should be taxed first because they are capital, and if any capital is taxed vehicles should be included. Second, vehicles should pay for pre-empting space on the public highways, and third for polluting. It is questionable if the insurance they pay really compensates society for the death and injury they cause and the enormous cost of avoidance imposed on others. However accomplished, taming of the individual vehicle would contribute as much as anything to releasing the constructive forces of synergism to create great environments and great cities.

The problem of overloading the local amenities is largely a vehicle and apparatus problem, too. There is an alchemy which can transmute a small, noisy, overcrowded lake into a serene, spacious vista: simply outlaw motorboats. Likewise, keep cars and motorbikes and P.A. systems out of the parks. Allocate some police time to enforcing a few more basic behavioral controls as well -- this is much cheaper than making new parks, and less resource-using than sterilizing all the undeveloped land in a community to save the parks for early settlers. The policeman's salary appears in the budget every year and is subject to heavy payroll taxation, creating a strong cultural bias against doing anything in a labor-intensive way. In the longer term, this cultural bias needs correction, but even so, there is a case for more policing of public access amenities to offset the Gresham's Law which otherwise acts to reserve them for the most offensive individuals.*

In terms of equity, the right of acreage holders to sell to people who will crowd local amenities would be stronger were property taxes to be based primarily on land value so that all landowners would have shared equally in the cost of developing the amenities. Cities should annex land only shortly before it is actually ripe for urbanization and might levy on the annexation increment as the price of admission -- a proposal that warrants more study.

*In a still larger sense it is the national choice to substitute heavy welfare payments for the creation of job opportunities that drives so many rough-edged juveniles to overload the public amenities, and the only ultimate solution is a basic reversal of our bread and circuses approach to the unemployment issue.

The problem of overloading local schools is a financial one since schools can be duplicated, and is on the way to being solved, thanks to recent court decisions (although it would be an unhappy economic solution if we lost the property tax in the process). Overloading welfare finances is similarly being solved by shifting the burden to higher levels of government (this, too, is an unhappy solution if we neglect the primary solution of increasing employment opportunities). In terms of protecting urban synergism, the major business ahead is the problem of the insolent chariots. To contain the land-gobbling vehicles, there are several powerful greed lobbies to overcome. These, in turn, thrive in a culture that worships big toys and submits to their owners; that drives people off the land and into the streets; and that then idealizes aggressiveness and vehicular vagrancy and despises the victims, whether silent or in protest. To redress the balance, we must tax private land to actuate the owners to make it more accessible to labor; and we must either untax buildings or tax vehicles or both.

Old Buildings Amid New

Old buildings often sap value from new ones nearby. There are exceptions where the old buildings are well maintained or rehabilitated or were outstandingly sturdy and munificent from the start. But, on the whole, older buildings downgrade neighborhoods while new ones upgrade them. Old ones pose greater fire hazards; generate more vermin and public health problems; more old, inefficient furnaces which aggravate

air pollution; more tenancy and turnover and neighborhood disruption.

Public policy, although it often strikes against new buildings of low value, tends to favor old buildings of low value. Old buildings are exempt from requirements for off-street parking which are forced on new ones, thus reserving free street parking for the old. Old ones are often exempt from some space and sanitary and just plain arbitrary requirements imposed on new buildings. Property taxes focused on building values clearly favor the old over the new, so long as the old remain blighted. Defenders of the property tax on building values have often explained it as a kind of user charge on the theory that public costs are in proportion to building values. But this becomes nonsense when we compare buildings of different age and quality. The old ones contribute more to public costs and less to public revenues.

These institutional biases reinforce the natural bias and make old buildings even more parasitic. Thus, abetted by public policy, the feedback principle that blighted land blights back has ruined whole neighborhoods. It has brought many to the tipping point where renewal never occurs; and a few of them to the extinction point where land in the centers of the greatest cities of the greatest country becomes absolutely worthless and is abandoned by the owners to the state.

There is a natural market mechanism for continuous urban renewal which has worked again and again so that in many older cities already four or five generations of buildings have occupied the same site. So long as a

city has strong neighborhoods, the land adjacent has renewal value. When pockets of blight do develop, they are ringed by strength which preserves the renewal value of land at the fringes. This causes renewal to proceed from the fringes progressively inward to the center until the pocket of blight is eliminated. Natural market renewal anchors itself on one side to strength and builds strength for the next step of renewal.

To preserve this natural renewal mechanism, we need a fair market. An important attitudinal change is to stop confusing slums with the welfare system (and a step beyond that, stop confusing any welfare system with social justice and full employment). Of all the ways to help the poor, the preservation of unfit housing is the least humane.

The good effects of taxing land instead of building values should be apparent. The tax on land values offers no obstacle to renewal, but does build a fire under the owners of land with blighted buildings and redevelopment value.

Other kinds of discrimination in favor of old buildings -- the various grandfather clause privileges -- should be removed and, if anything, reversed. It is fair to levy differential charges on land with old buildings on the same rationale that it is fair to levy a charge on polluters: because they blight their environs. At the same time to strengthen this process we need remove any hint of subsidy to outlying building. The same collection of ordinary buildings that will downgrade and menace an exclusive estate area will serve to upgrade a blighted area, as well as use existing public works in the

old city. It is the city's interest to prevent the former and encourage the latter.

Holding Land For Future Use

A good deal of city land is empty and unused. Empty land pulls the city apart and hinders synergy, without the redeeming grace of lawns and shrubbery. Like other empty space, vacant land increases circulation costs. Let us add to the points made previously that empty space increases the distance from the city center to the hinterland on which the city depends for food, refuse disposal, building materials, rural retreats and resorts, water supply, and a significant flexible labor force element that alternates between rural and urban work.

A rationale for this could be that the landholder is reserving land for a higher, more synergistic later use. If so, reserving land could have some value. But on the whole this rationale is a rationalization, a less than half-truth blown into a whole truth. It overlooks the fact that most of the costs of waiting are borne by the public while most of the benefits go to the owner. It is also a golden outlet for procrastination by those with the means to be insulated from ordinary pressures to maximize their wealth and deal with others.

Empty land radiates uncertainty in the interdependent business of neighborhood and community building, hampering the coordination and synchronization among private owners described earlier. Vacant land has rights to potential service from capital-intensive city infrastructure, including extensions around the empty land, without paying for it but

reserving a contingent right to load it at the owner's convenience.

Some land held for future use is not vacant but kept in the terminal stages of its previous use. This can be worse than vacant land. Farming in the van of expanding cities runs down. The land moves to strong hands in large tracts and the ordinary business of farming becomes incidental. Capital is milked instead of replaced; no one plans for permanent farming; and healthy farm communities are destroyed much earlier than need be. In the van of expanding commercial districts, the results are frightful. High speculative prices pre-empt land from resident owners. Absentee owners milk old buildings and foster neighborhoods of tenants and transients. These denizens in turn invade public places downtown, and Gresham's Law weakens or destroys the very force on which the speculation is based. Blighted property blights back. It wounds the central business district deeply, often mortally.

Owing to institutional bias, the timing of development calculated to maximize individual wealth is not that which maximizes social wealth. Taxes are based mostly on either buildings or activities rather than land values. Building, improving, buying, selling, working, earning income: these are all occasions for tax levies. The tax collector is put off by deferring improvement and minimizing action. Raw land, on the other hand, is traditionally underassessed while it appreciates quietly. This unearned income is treated much more favorably than ordinary income under our income tax.

The individual's optimal timing is made much slower than that which would maximize the present value of tax collections by such tax-slanted incentives. In addition, since income tax incentives are individualized, neighboring landowners are subject to very different timing incentives and the synchronizing mechanism of the market is in ruins.

Before there was an income tax, there was the same problem, less aggravated than today, because of "front money bias." Internal discount rates vary among individuals almost as much as income tax circumstances, and the speculative land market has always been one where accumulated wealth dominates, a point established by 19th century historians.⁹

Antipathy to "land speculators" often has an anti-commercial undertone and is easily deflected by citing the worthy individual who holds empty land, not for sale but for his own future use. Crusading politicians melt like butter before the pathos of this argument. If I buy cheap today and use dear tomorrow, there is no income tax on the appreciation. Only when I let someone else at it am I a bad guy who deserves to be taxed.

Business is likewise above reproach when it holds empty land for possible "future expansion." The "future expansion" rationale has its problems. It is, for one, invidious. Policies that make it cheap for A to hold land for future expansion at the same time make it difficult for B, who has no land, to acquire it for future expansion. This is a high ante game with a sharp front money advantage reserved to those with accumulated wealth.

More subtle, more pervasive, is the effect on the competitive land market. There is a fallacy of composition here, "the fallacy of universal vertical integration." Imagine a city where all the firms held land around their plants for possible expansion on the assumption there was no free market in which the few who actually will expand can buy land at the time of need. This arrangement would enormously increase the aggregate demand for land and in the process go far to destroy the synergistic city. It would also destroy the market for land.

When several large firms acquire circumjacent land for future expansion, they begin destroying the land market and force others to hoard too, those who have the strength that is. The land assembly market is hard to keep working at best. This is hitting it at the weakest point. There is a snowballing or feedback effect, just as in the analogous market for scarce raw materials. Vertical integration by some forces it on others because of the threat that the free market will disappear. If we want an economy and society organized around free markets, we do not want to encourage firms to hold land for future expansion.

The future expansion rationale is based on the convenience of those with great wealth who want to get bigger, but a free market economy and a healthy society both need more small independent owners. Over-concentration is a major problem anyway. Where land carrying costs are high, i.e., when land taxes are high, the market is fluid and new firms have a chance to get in. In those rare cases where there are real

economies of scale through expansion, it permits firms to expand at the time of need. It eliminates that spurious and invidious economy of scale which consists in superior ability to hold land in advance of need.

Redistributive Taxing and Spending

Schooling and welfare spending is mandated by the state and imposed on localities. So is support of religion and charity to the extent of property tax exemptions. At the local level these requirements appear parasitic, even to the same people who approve them at the state and federal levels. This leads to large biases in locational incentives on the one hand and zoning practice on the other. Poorer people seek to invade jurisdictions of high per capita wealth, with developers running interference and local zoning boards on the defense. Both the offensive and defensive platoons have developed high levels of skill at this game in which efficiency, equity and consumer sovereignty are lost in the shuffle.

I have previously noted how these twisted incentives may be straightened by having the states pay individuals directly. Or, if they must work through local government, make payments proportional to population. Here let me add that such payments to be effective should be net payments above tax burdens exacted by central government. Alfred Marshall distinguished "onerous" from "beneficial" taxation, the former being taxes levied for a higher government without compensating services to the locality. Immigration invites onerous taxation by state and federal governments because these governments tax primarily persons rather than things. The message to local

government is "the more people you accommodate, the more taxes you pay," while government spending is based on other criteria not limited to population and often not including it. Taxing-spending formulas become major determinants of location.

Central governments wishing to redistribute wealth should tax wealth rather than persons and distribute to persons rather than to governments. This simple truth has been masked by generations of infatuation with the word "income" and the idea that income taxation can be substantially neutral. Income taxes as they actually exist tax persons for working much more than they tax wealth for yielding services or cash or unearned increments, and are the antithesis of a social dividend. Indeed an effective way to distribute social dividends today would simply be to abate income taxes.

The antipersonnel bias which is inherent in taxing income in personam is fortified by an antimetropolitan bias in the structure of the tax laws. One telling evidence of this is research by Finis Welch and Robert Evenson finding that farmers reported for income tax only up to 69% of their income in North Dakota, the highest state, and as little as 2% in California and other low states.¹⁰

Another indicator is from the Bureau of Labor Statistics: "Urban family budgets and comparative indexes for selected urban areas."¹¹ Personal income taxes are reported as a budget item. For the low income budget personal income taxes are 30% higher in metropolitan than nonmetropolitan

areas; for the high budget family they are 40% higher. In effect the Federal Government taxes people for moving to metropolitan areas. After the Feds have skimmed the cream, there is that much less left to support local government.

Territorial Segregation

Segregation is the seamy side of choice. The urbanite's wide range of choice forces him to screen most people out and limit his sense of community. A wide choice of schools leads to concentration of successful families around some, thus impoverishing others. One or a few big city schools come to specialize in education and others in keeping kids off the street. Suburbs are the next step and now we have walled compounds, prominent in Orange County, California, with gates and guards.

Is the answer then to reduce people's range of choice to select their own associates? I think not. Extreme alienation can also be found in rural and sylvan areas. The IWW indeed was the most militant and alienated of labor unions, and farm workers although powerless are certainly as alienated as any urban tenant. The basis of alienation is rather the concentrated ownership of property by others than its residents and workers and managers. This is compounded by subsidizing highways to exclusive suburbs and exclusionary PUD's. The same policies recommended above for other purposes would alleviate the worst aspects of urban segregation and alienation.

Self-Contained Land Uses

Early America offered a contrast between two kinds of land settlement. Plantations dominating some regions were

self-contained. They did not need cities and did not encourage their growth. Small farmers in other areas depended on trade, each other, and urban craftsmen. They needed cities and cities grew to serve them.

Self-containment within the city is a contradiction. The modern growth of self-contained vertically integrated multinational corporations owning large tracts of urban land is seriously weakening cities, therefore. The more self-contained the firm, the greater its need for secrecy, the greater its tendency to promote from within, to reward seniority and to hold people with pension promises. Corporate man becomes a citizen of the corporation first and the city second, if at all. The corporation needs its neighbors less and less and its New York banking and Washington political contacts more and more. Large business landowners become an alternative to the city, not part of it but a hindrance to it. The decline of the city and the rise of the corporation go hand and hand, just as the decline of ancient Rome went hand in hand with the rise of patrocinium and the benefice, the PUD's of that era.¹²

SUMMARY OF POLICY

The synergistic city is the product of free choices by independent decision makers in free markets, abetted by public policy and planning. To make it work, community leaders need attend to the workings of the private market; to planning and financing public works; to equity among persons; and to land use regulation.

With respect to the private market, the job is to keep it fair by exorcising institutional biases. At present there is a great deal of "noise" jamming the signals of the market. Tax policy adds most to the noise. Even a tax on net income is bad because it weakens market signals compared to the noise (and adds noise of its own). On the other hand, a tax on land values not only transmits market signals but helps the market work better by amplifying the call of the consumer. It does this by applying leverage: the tax is a fixed cost, while revenues vary with the effort and skill managers apply to serving consumers.

Taxing land values lubricates the market by making it more costly to hold land in reserve. This does not destroy the reserve function, but has the effect of pooling reserves by making it easier for expanding firms to acquire land through the market when and if they need it.

With respect to public works and municipal services, we need to deconsolidate accounting so that separable parts are analyzed and evaluated separately. This lets us eliminate cross-subsidy. Then we can apply the logic of marginal cost pricing without abusing it, as now. We need to foster private capital that improves land served by public works. Even though this results in loads on public works, it obviates extensions to serve the same loads further out.

We need a more positive attitude toward private capital which supplements and extends public works vertically at private expense. We need a more negative attitude towards "pre-emptive capital" which occupies public land and capital

where access is open without adequate price. And we need to avoid over-delegating public authority over street planning to large private landholders. Whether the voters are capable of selecting statesmen capable of rising to this challenge and laying out streets well will always be the marginal question, I fear. But the alternative is a collection of tracts, company towns and planned unit developments which will never make a synergistic city, or a democracy either.

With respect to interpersonal equity, once we make efficiency a goal we can reconcile it with most ideas of equity (which are subjective). We should never imagine that partial equity (as for instance by avoiding slum clearance or giving cheap water to favored individuals) could add up to anyone's notion of general equity in the whole economy as a total system. It is better to let efficiency prevail and use taxes to make compensatory equitable payments in money, rather than give in kind specific things to a limited few consumers. Land taxation lets us do this without impairing incentives. Land taxation is, indeed, essential to let cities plan public works efficiently: by recouping the benefits to some landowners through the tax mechanism, we avoid wasting subeconomic services on others who exact this as the price for political support. The alternative is logrolling, pork-barreling, uneconomical public works extension, and corruption.

Land taxation helps reduce urban alienation in three ways: it minimizes the division of haves and have-nots by taxing the haves to support government; it actuates landowners to use their land, thus, second, giving jobs to the landless

and, third, rendering services to them. It discourages absentee holding and encourages the resident holder, who participates more in community affairs.

Redistributive payments need not distort efficient location incentives if they are paid directly to individual citizens in cash, rather than being routed through governments and/or paid in kind.

With respect to zoning and land use regulation, the need for these is minimized by application of the other principles suggested. We should retain zoning but limit it to maximizing joint values, having purified the motives of local officials by distributing social dividends directly to people, not to local governments. Zoning is a poor substitute for direct action against pollution and nuisance and overuse of the public wealth, all of which sapping is better purged by user charges, direct prohibitions and regulations. We should minimize edge conflicts among incompatible land uses by encouraging compact sequential expansion. We should also encourage intensification, which is growth without expansion.

We will still not have the City of God on earth. Contradictions and unresolved value questions will always remain. We are dealing, underneath it all, with the most central social dilemma, how to maintain a healthy society in a sick world without being overwhelmed by immigrants. Part of the answer lies in healing the sick world, and part of the cure would be the demonstration effect of our own good example. Show how immigrants can be used to strengthen a society, and others will follow suit. Another part of the answer lies in

the increased need to save energy and other resources. The synergistic city is resource-conserving. The rest of the answer, whatever it may be, merits our sustained pursuit in order to secure the enormous advantages of urban civilization in the synergistic city.

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