



Broken Skylines

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Broken Skylines

Mason Gaffney

Urban land serves a region much as the farmstead serves a farm. It is a central storage base for collecting and distributing outputs and inputs, and for sorting, processing, and re-assembling them. It functions of course on a much larger scale than the farmstead. It is a center affording easy, reliable access to enough volume and variety of resources and markets to permit of complex, specialized, continuous, and large-scale operations. It is a reservoir of goods and labor whose abundance gives the slack to allow flexibility of operations, meet emergency needs, and afford the innovator endless possible combinations of skills and resources to experiment with.

The city is a convenient gathering-place where buyers can rely on finding sellers, and sellers buyers, a place to inspect, compare, and exchange goods, and render and receive services. It is also a central store of information and ideas, hence a place to confer and arbitrate, plan and administer, research and educate. It is a place where many minds can associate freely to stimulate, evaluate, and diffuse new techniques and ideas: in all, the brain, control and power center of society.

Urban location is also of value to meet needs unknown and unforeseen: the city is a place where one can "get anything," learn what is to be had, and, in a dynamic, competitive world, keep touch with the latest products, information, techniques, and ideas.

Urban land commands a premium, too, as a place to reside. For living, as for business, its advantage is access to a wide selection of opportunities and associations. Its large local market attracts a variety of specialized goods and services. Its compactness permits of cheap distribution, which in turn facilitates savings from large scale central operations.

While it need not be fertile, or flat, or even dry, good urban land is very scarce. The capacity of lands for urban functions depends on their location relative to transportation, resources, and markets. The entire network of location factors defies simple analysis. But the greatest cities develop at strategic central locations where they assemble and process many resources for many markets. Junctions and hubs of transportation have obvious merits, as do heads of navigation and other load-breaking points.

But good location is not enough to fit land for urban functions. Access, the basic urban resource, is partly man-made. The city enhances its natural advantages by pushing out routes to tap wider territories, but that is only a start. To realize its full potential the city develops a network of local transportation, a system of general mutual access through which its life blood circulates.

So vital is transportation that most cities devote over half their developed land to it. Harland Bartholomew's 1955 Land Uses in American Cities tabulates surveys from 53 central cities, in which streets and alleys occupied 28% of the developed area. Autos are voracious off-street land-consumers too. One parking space, with access lanes and a little to spare for human weakness, preempts over 300 square feet. In residential areas driveway and garage occupy about as much of a typical lot as the house on it, and many factories occupy less space than their own parking lots, loading and delivery aprons. The modern auto-oriented shopping center actually allows four or five square feet of parking for each square foot of floor area, while filling stations are almost entirely open space.

Other forms of transportation are less demanding, but still take a good deal of land. Railroads took 5% of Bartholomew's 53 central cities. Sidewalks, which Bartholomew did not list separately, take another considerable area, as do docks, bus terminals, airports, and easements for pipes and wires to transport water, gas, and electricity. Even inside buildings we find a large area in halls, elevators, and in stairs.

The city is a huge cooperative enterprise whose members join forces at will through common access to a spacious network of public and semi-public lands dedicated to free movement. Most of this public land yields little direct income, but the city can ill afford not to devote generous spaces to these corridors, which allow full release of the enormous productive forces inherent in specialization and exchange, and give the private lands their value.

The last essential for productive urban land is the improvement of adjoining land. One lonely storehouse no more makes a city than one smoldering stick a fire. Assembled buildings, although competing for customers, suppliers, and use of public spaces, generally also complement each other so as to enhance their overall productive value enormously.

For the essence of urban value is access, and every resource the city adds increases the volume and variety of resources accessible to all. Each new seller is a magnet for more buyers, and each buyer for more sellers, drawing trade from farther, attracting more transportation routes and scheduled runs, and helping establish the city as the place to rely on finding what you want, selling what you don't, and keeping up with the times.

Each addition to the local market also helps spread the overhead of more specialized and larger-scale operations. And each new taxpayer shares the burden of large public works, and improves the city's credit.

A growing city therefore may enjoy a long stage of increasing returns, during which growth begets more growth. This gives the one best location of a region a decisive advantage over the second best, and the earliest development a commanding lead over later comers. The largest urban nucleus tends to snowball, while others shrivel.

The limit to increasing returns is transportation cost to feed the hungry giant. The larger it grows, the farther abroad it has to range for markets and materials. And many cities are stopped even short of this by the city father's fear of spoiling their markets, lowering rents, raising wages and taxes, mingling with outsiders, or losing control of local politics. But a number of metropolitan titans have burst these bonds to accumulate a large share of the population, capital, and land value of the country. New York City, at the top, had 7.9 million people in 1950, 5.3% of our population, and its annual real estate taxes were \$527 million, 7.5% of the national levy, paid with such ease from its enormous tax base that the City continually petitions the State for permission to raise the rates.

These valuable resources take up a remarkably small area. For the city's gravitational pull does not stop at its fringes. The center of gravity, the downtown district of maximum access, draws the whole city in upon itself, storey on storey. And in this focussing of demand the city finds further increasing returns from large-scale building.

Geometrically, the most economical layout to interconnect given space-users is in three dimensions. Central heating and other utilities can be distributed over shorter conduits than in two dimensions, and each room has quicker access to most of the others. Too, the inner partitions need not be weatherproof, while the outer surface of a cube increases in lesser proportion than the space it encloses. So a large multi-storey building provides given space, services, and access cheaper than several small buildings.

There are limits of course to the economical height of buildings, and to how much crowding people will endure. And everyone knows that recent years have witnessed a conspicuous centrifugal surge. But this should not blind us to the city's basic cohesive tendencies, which are its very reason for being.

Just how small an area cities occupy no one knows, for no one can say where the city ends. The Census defines "urbanized areas" roughly as those in and around cities of 50,000 and over. In 1950 that was about 8 million acres, evenly divided between the central cities and their "urbanized" fringes. Eight million acres is the area of Maryland plus Delaware, .42% of the continental United States, and a little less than the 9 million acres in farmsteads. It seems a modest space requirement for its 70 million residents, particularly the 50 million in central cities.

The Census has been very conservative in its definition, for the area enclosed inside far-flung urban outposts would certainly be much greater. 8 million acres is the area of a circle with a radius 63 miles, and stray bits from any one of our largest cities may be found that far from its center. But even the Census' limited area is "urbanized" only in a loose sense. Despite the advantages of compact land use, central cities themselves are surprisingly patchy. In Bartholomew's 53 central cities the undeveloped portion was about 29%. Many local planning surveys show comparable figures.

Bartholomew's developed urban land was per capita about .06 acres, or 5 yards on a football gridiron. At this density the 50 million people of central cities over 50,000 use nearer 3 million acres than four.

Even some of that 3 million acres they "use" only in a poetic sense. It is mostly open space. The area actually covered by buildings is probably less than 300,000 acres, less than many a western ranch, and less than 10% of the "developed" area of the central cities.

No one expects that every building should occupy 100% of its site, but just how vast a yard and grounds should be designated as "developed" by a building somewhere on it is a puzzle. Some urban buildings do have to occupy their entire sites, and by contrast such others as the 75 acre spread around Ford's new Administration Building in Dearborn seem nearer akin to undeveloped lands. No one can say exactly how to designate such lands, but some sort of allowance would certainly reduce the central city's land use appreciably below 3 million acres.

If the central city is a little patchy, its outskirts are in shreds. Here to be sure are big land users like golf courses, dumps, drive-ins, airports, and forest preserves, serving the central city. But it would be hard to define any segment of this nebulous territory that was not largely in weeds. Probably less than half the Census' 4 million acres of urban fringe deserves to be called "developed."

For cities under 50,000 our data are progressively less detailed. Wooten and Anderson estimate that all cities over 1,000 in 1954 occupied 18.6 million acres, about the area of South Carolina, and 1% of the continental United States. Communities under 1,000 may occupy another 10 million acres. But all these figures include empty spaces, which make up larger portions of smaller cities.

As to urban values, they are prodigious. It is easy to underestimate them because of cities' modest space requirements. But there is nothing modest about the prices of urban land. The city man metes out his land, as befits a precious object, foot by foot. Street access being as important as sheer area, his unit is generally the "front foot," a foot on the street with the strip back of it 100 - 150 feet to the rear of the lot. A foot on the right street is worth whole farms.

The stroller down "Main Street" of almost any city over 50,000 walks by more than \$5,000 a step. Among the dearest is State Street, Chicago, where some frontage goes for \$50,000 a foot, about \$22 million an acre. Market Street, San Francisco, runs around \$10,000 a foot; Fayetteville Street, Raleigh, around \$4,000.

Residential lots in respectable established neighborhoods run from \$50 - \$250 a foot, and over \$500 a foot along a few gold coasts. Apartment sites average a little higher, again with wide variations among cities and neighborhoods. Some subsidiary shopping districts rise into the \$1,000 a foot class. The best industrial sites in large central cities command well over \$100,000 an acre.

Out from the center land prices are much lower, but still impressive. Undeveloped residential or industrial land along new superhighways is bringing \$ 3 - \$7 thousand an acre these days and more around New York City; potential shopping center sites, \$10 - \$50 thousand.

At such prices it does not take many cities to out-value all the farms in whole states, and in most states one or a few of the largest cities do. At the top, New York City real estate in 1955 was worth some unknown amount over its assessed valuation of \$20 billion, which was the current market value of all the farm real estate in New York plus 19 other eastern states. For the whole country, urban values exceed farm values several times over.

It may even be that urban values exceed farm values per capita. One cannot be certain. Land prices swing violently and rapidly, yet the only general source of data on urban values is from moss-covered tax assessments. Urban assessments are even more obsolete than rural, if that is possible.

But we do know how much taxes property pays. It may surprise some farmers to learn that farm property taxes are less per capita than non-farm property taxes: \$52 compared to \$67 in 1955. Of some \$10.7 billion levied that year, farm property bore only \$1.1 billion.

The higher urban levies might reflect higher urban tax rates, rather than per capita values. The average rate on farm real estate, as reported currently by the Agricultural Finance Review is about 1% of market value. Until recently I would have guessed urban real rates averaged a little higher, despite some flagrant examples of underassessment. But the most thorough study of the subject to date, published in the February 1957 Review of Economics and Statistics, found otherwise. Scott Maynes and James Morgan, analyzing data from the University of Michigan Survey of Consumer Finances, and the U. S. Census Residential Financing Survey, found the real rate of property taxation on owner-occupied urban residences in 1953 to be very near 1%. And the study did not include the classes of real estate most typically underassessed: rented slums, and vacant lots and acreage.

Also, in a 1952 Census study of 50,000 real estate transactions in 101 counties of downstate Illinois, Allen Manvel found farm real estate overassessed, hence overtaxed, relative to urban real estate. Arthur Walrath found the same in several counties around Milwaukee in 1955. Remember, too, that an appreciable share of urban real estate is tax-exempt institutional ground.

Other indirect evidences of real estate values are the mortgages they carry. As of December 1956 the farm mortgage debt was \$10 billion, compared to \$135 billion on urban residential and commercial real estate alone. Urban real estate may carry a higher ratio of debt to value; but on the other hand we have not counted in any part of the debt on industries, rails, or utilities.

Both these comparisons suggest that non-farm real estate values may be as much as ten times farm values, or one trillion dollars. This is plus or minus a wide error from such indirect estimation, obviously, but at least affords a notion of the general dimensions of urban values.

Of course "real estate" is more than land, and it may be that urban real estate values inhere largely in the buildings. We hear a good deal about the declining importance of land in an urban society. But this may be a misconception.

Builders putting new single-family homes on cheap outlying land reckon the site at 1/6. or recently nearer 1/5 of total cost. But not many urbanites live in new homes on cheap outlying land. Even today, after twelve years of record-smashing construction, 75% of all urban dwelling units are pre-1945, and most of those pre-1929. In older central cities there are almost no new residences: a 1953 study by the Real Estate Board of New York found that 80% of Manhattan's apartments were over 50 years old.

In fringe areas, where new buildings do outvalue their own sites, a large share of the sites have no buildings: around Cleveland, for example, 57% of the Cuyahoga County Planning Commission's "suburban ring" was vacant in 1954, and 84% of the "rural ring." And in commercial districts, with their majestic frontage prices, it takes a new and substantial structure to match the site value.

All in all, from the limited information available, it would be presumptuous to dismiss land value as less than 50% of urban real estate value, especially if we include vacant lands at their current market prices. And interestingly enough, the ratio of land to building values tends to be highest in large, densely populated and built-up cities, where economic life is supposed most completely to have lost touch with the land.

A striking aspect of today's cities is their rapid outward thrust. Urban values being what they are, cities gobble up farm land at will. There is no accurate survey of the wide and ragged urban frontier, but various estimates suggest it has been advancing recently over about 400,000 acres a year, into the heart of America's farm lands.

Is this in the farmers' interest? Many thoughtful observers are raising voices in alarm for the future.

But the city earns much of its bread and butter serving farmers. It is the farmer's interest that the city have ample land to serve him well, and spread its butter thick. He would only suffer by confining the city into a bottleneck between the barn and the breakfast table.

This, indeed, is a position some cities are all too glad to assume anyway. Like city-states of old, many modern cities have attained a measure of monopoly power over parts of their trade territories. If they prefer now to settle back and exploit their position, they can levy tolls on passing commerce, among other ways, by limiting the number of developed urban sites. This lets merchants and landlords exact charges based less on service than on artificial scarcity.

They may lay out streets so as to limit the business frontage, and maintain obsolete traffic patterns to protect vested investments; discourage new buildings by overassessing them relative to old -- a practice grown especially common since the war; zone out new developments they cannot tax disproportionately; wink at tax-delinquent land speculators and sell off foreclosed properties only slowly; endow tax-free institutions with grounds vastly beyond their needs; and neglect essential public works. Whether by design, apathy, or sincere devotion to obsolete tradition, probably most cities indulge in some of these and other restrictive practices, and are inadequately developed fully to serve the demands on them.

But scarcity breeds substitution, and substitutes for central city land lie all around it. Abetted by automobile and truck, demand frustrated at the center spills over city limits into surrounding farm lands. And farmers' best assurance of adequate, modern, competitive urban services may be to release lands for new development around stagnant central cities. With all its faults, such expansion does introduce new competition for farm trade.

However the evolving pattern of urban expansion still bears very critical watching. Is it making an efficient city, to distribute goods with minimum time, motion, and cost? Does it need to swallow so much good farm land? And is it stable? Or may it collapse in the same chaos as most preceding land booms? Let us analyze the expanding city more closely.

One of Stephen Leacock's memorable characters was the eager suitor who leaped onto his horse and dashed madly off in all directions. Thus the distraught city gallops out hither and yon in a pattern with little apparent consistency or reason. It refuses to follow logical avenues of growth. Here is Washington, D.C., growing out from the back door of the Capitol, in defiance of its planner's best-laid schemes. Or it hurdles over its own essentials: here are sewers without houses, while out beyond arise new houses without sewers. There is hardly any predicting where the city will turn or leap.

What is the city seeking? More space? There is considerable unused space in the central city itself. Lower taxes? Fringe residents, scattered broadcast and without downtown commerce and industry to share tax burdens, must pay more taxes to finance given municipal services. Recent surveys by Hawley and Zimmer of the University of Michigan found fringe residents actually more willing than central city residents to assume higher taxes. Freedom from traffic? The farther one lives from jobs and markets the more traffic he must buck in between. Freedom from restrictive policies? Often so -- yet many suburban enclaves become more restrictive than the central city.

Of the many, many things that urban refugees are seeking, most actually are to be found in the central city. The refugees want municipal services, access to social and economic opportunities, and other urban advantages -- but not at any price. To reduce a complex socio-economic phenomena to simplest terms, urban out-migrants, like westward pioneers before them, are seeking cheap land. The very advantages of the city prove its major liability when they promote asking prices so high as to drive builders out of town.

The quest for cheap land leads the city to disintegrate. This quest turns very much on the individual seller. Asking prices for comparable lands vary widely with the seller's finances, tax position, information, sentiments, or sheer cussedness. Buyers find a bargain here, another yonder, and build accordingly, so that development proceeds in patches and freckles.

State highway builders, meantime, can stretch funds much farther where right-of-way is cheap. New highways, like railroads before them, often tend to by-pass congested areas and develop earliest and most fully in less settled territory. They open wide new areas to hunt-and-peck development, and where they converge establish new urban nuclei.

These outlying bases launch still farther-flung developments until many of our disintegrating cities are overlapping each other. Especially along trunk routes, they are coalescing into gangling, diffuse urban complexes that some modern writers, fancy running free, are variously describing as "polynucleated urbs," "cities as long as highways," "atomic megalopolises," and "scrambled eggs"; and hailing, with enthusiasm or resignation, as forerunners of a new era.

Are they efficient cities? Island-hopping may win wars, but it is no way to lay out camp, or a city. Cities exist to bring people together; modern American cities are falling apart. They require billions in transportation and utility lines to join the scattered pieces, but the result is still an uncoordinated tangle. Commerce by-passes ancient bottlenecks only to meet an obstacle course that consumes untold time and motion. This can hardly avoid reflecting itself, among other ways, in a wider farm-market spread.

Such coherent patterns as do emerge leave much to be desired. Most common is some variation on a linear theme, strung out miles along a railway, waterway, or highway. It takes three-dimensional development to afford maximum access at minimum cost among given space-users. Linear developments do not even use two, but force all traffic along one long, congested line, and that often as not built originally for through traffic. Geometrically, line development has little to recommend it: why go 50 miles west when there is open land five miles north? The explanation for such inefficient layouts must be that cities fail to provide adequate two-dimensional street networks: or when prematurely high site prices hamper building closer-in, interurban trunk lines provide ready-built, open-ended avenues of escape to cheap, accessible land.

Now to the second critical question: do cities need to swallow so much good farm land? Let us concede the city first choice over the best land, even the most fertile, just as farmers concede corn first choice of the best wheat land. It may not make much sense to farm in the Ozarks, but it would make less to put St. Louis there, Minneapolis in the north woods, and so on. But this hardly settles the question.

For cities, even central cities, are not using nearly the land they already contain. And these undigested pieces are of negative value to the city itself. Needlessly dispersing urban activities, they destroy part of the city's basic resources: cheap distribution and easy access. Even if land had no alternative use in farming it would pay many cities to draw themselves together.

Dispersion also forces heavier reliance on those hungry land-gobblers automobiles and trucks. Their demands for highway, turning, and parking space may displace some 90,000 dwelling units a year, scattering the city out further and consuming more farm land.

It is especially out from the center, though, that cities preempt vast lands they do not and may never use. Little urban fragments, prospering busily among fields and orchards, excite speculative hopes for land sales around and between them until urban price influence extends millions of acres beyond the city limits.

It is a baleful influence on farming. The dirt farmer has struggle enough financing title to lands priced by their anticipated income from agriculture alone. Urban prices push him out of the market completely. Around cities, the landholder must be a speculator as well as a farmer.

Often he is not a farmer at all. In areas with urban possibilities, high-priced lands tend to gravitate to those who have the financial power to wait. And urban financial power is something few working farmers can match.

This is the truer today because of our income tax laws, which let speculative gains go partly or completely free. To begin, any interest and local taxes are fully deductible. Then the speculator need establish that neither is he "in the real estate business," nor using the land in his "business or trade," to qualify for capital gains treatment: i.e., excluding 50% of the gain from taxable income, with a maximum tax rate of 25% on the gain. That is of great value to the man in an 80% tax bracket. Should he be so unfortunate as to lose on one deal, he can offset the loss against other capital gains - something the dirt farmer is not likely to have. Better yet, if he sells his residence, and puts the proceeds into a new residence within a year, the whole gain is tax-free -- and with a little effort a commuter may learn to "reside" over a good many dozen acres.

Best of all, one who buys land years in advance of his own needs never pays a tax on the rise of value, so long as he does not sell -- something many intrenched corporations with large reserves "for expansion," have little expectation of going.

The result is a virtual scorched earth policy for many lands around cities. Why improve or conserve farm soils soon to be urbanized? Why risk any productive land use that might disqualify your income from capital gains treatment? For other lands it means a wasting away of farm capital. Around expanding San Jose, California, for example, Jack Lessinger is finding orchards deteriorating rapidly as the city infiltrates the Santa Clara Valley. Orchards are deteriorating over a wider area than he reckons the urban demand is likely to occupy.