



**OF
CABBAGES
AND KINGS
COUNTY**
**AGRICULTURE
AND THE
FORMATION
OF MODERN
BROOKLYN**

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Lawrence S. Zacharias

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12. CONCLUSION: IS URBAN AGRICULTURE OXYMORONIC?

From the story of Bushwick every town on Long Island may draw a valuable lesson. . . . Nassau County is today as near a neighbor to New York City as Kings County was a century ago and who can tell how soon Suffolk County will be in precisely the same position? Distance is today not as great a factor, as it was a century ago and the Long Island farmers of our days are not quite as unwilling to have their farms converted into city lots as the Bushwick farmers of old were.

— Eugene Armbruster, *Brooklyn's Eastern District*, 1928

This final chapter examines twentieth-century land-use patterns in New York City to evaluate the consequences of the loss of market gardening in southern Kings County as farmers were “gradually pushed farther and farther . . . eastward” and rural Kings County was made available to mass residential settlement. Questions as to the appropriate relationship between city and countryside have assumed renewed importance: as urban and regional planners, ecologists, and agricultural developers all over the world reevaluate urban sprawl and the need for greenbelts or urban-agricultural balance, the lost opportunities of the past loom larger.¹

THE DEBATE BEGINS

But for one displaced farmer there are going to be those thousands of happy families finding homes.

— Jane Corby, “Impact Is Widespread When a Housing Project Rises,”
Brooklyn Eagle, December 4, 1949

The point of questioning the market-knows-best equation of the existing pattern of land use with rationality is not to lend credence to some Khmer Rouge–like challenge to the notion that it “would be a tragic waste to turn Times Square into a potato patch.” Nor is the purpose to portray Henry Meyer and other Kings County developers and speculators as the functional equivalents of the executors of Stalinist dekulakization. Nevertheless, although these pioneers of suburbanization hardly expropriated a boer yeomanry, it is worth recalling the admonition that the *Real Estate Record and Builders’ Guide* issued in 1869 concerning the socioeconomic impact of the laws of capital accumulation on agriculture, which resulted in “the large farmer . . . buying up all the small ones.” If economic forces prompted the typical Kings County vegetable farmer to abandon production in the realization of his “hopes that the elevations of his farm may be taken for building sites,” while he “in imagination marks out city lots all over his broad acres,” his place was indeed eventually taken by more capital intensive large plantations in the South and West.²

The *Real Estate Record* had anticipated by a decade some of the deeply held populist complaints to which Henry George gave eloquent voice in the 1880s. These tendencies toward centralization of agricultural holdings meant “the extirpation of the typical American farmer,” who was being replaced by “the capitalist farmer and the farm-laborer. The former does not work with his own hands, but with the hands of other men. . . . The latter is a proletarian, a nomad — part of the year a laborer and part of the year a tramp, migrating from farm to farm.” But George did not formulate his views of farming in isolation from the larger problems of capitalist development. For George, the concentration of population in the cities was as harmful to farmers as to urban dwellers: the “unnatural life of the great cities means an equally unnatural life in the country.” The impoverishment born of overcrowding was reflected in “the barrenness of the isolated farmer’s life. . . . Consider, what is still worse, the monotonous existence to which his wife is condemned.” Regardless of whether George’s panacea — taxing away all land rent and eliminating all taxation except on land — would have brought about his proposed reconfiguration of town and country, he envisioned a dispersal of urban populations and a denser countryside giving both “breathing space and neighborhood. . . . Agriculture would cease to be destructive, and would become more intense, obtaining more from the soil and returning what it borrowed. Closer settlement would give rise to economies of all kinds.”³

In his 1886 New York City mayoralty campaign, George returned to his proposal that “the masses now festering in the tenement-houses of our cities . . . should each family have its healthful home, set in its garden.” Nominated by the labor and socialist movements, George focused on an issue that political-economic elites had also targeted — the overcrowding of the working masses in Manhattan. Despite “miles and miles and miles of land all around this nucleus,” it was not available for housing “because it is held by dogs in the manger who will not use it themselves, nor allow anybody else to use it, unless they pay an enormous price for it.” George called this fetter “a blackmail levied on the city’s growth. Here is a man who buys from the heirs of some dead Dutchman . . . a piece of land . . . and says: ‘. . . nobody else shall use it until he pays me my price.’ And he adds to that price as the city grows, and the demand for the land becomes greater and greater.”⁴

But the movement toward denser Greater New York settlement was so relentless that by the beginning of the century proposals to relieve congestion by removing people from the more crowded parts of the city to smaller towns and farms were rejected as a “Utopian scheme . . . involv[ing] the artificial resistance of a strong, almost irresistible, economic movement of population towards New York City.” As early as 1907, the Jamaica Bay Improvement Commission bemoaned that large parts of the Bronx, “by nature the most beautiful” of New York City’s possessions, had been “turned into a congested apartment house district.”⁵

Even as the deagriculturalization of the southern half of Kings County made overall urban decongestion possible, the inexorability of concentrated demographic growth was so self-explanatory that in 1914 a plan for Brooklyn commissioned by the Brooklyn Committee on City Plan, a private group of businessmen, blithely assumed that within forty to fifty years Brooklyn “would have to support a population of about 5,000,000 people” — three times its then population. This planned inevitability was all the more startling because the report acknowledged that Brooklyn already had by far the highest ratio of population to park acreage of all large cities in the United States. How quickly antiquated became the *New York Times*’s turn-of-the-century declaration that one of the little noticed characteristics that the new boroughs had conferred on Greater New York was “the opportunity afforded for people of moderate means but steady habits to make homes for themselves within easy reach of the great metropolitan mart, and yet not out of the sight of green fields and trees in summer, or deprived of pure, health-giving air all the year around.”⁶

The *Brooklyn Daily Eagle*, which published part of the report, editorially surpassed the City Plan in asserting: "Nothing in the future can be more certain than that Brooklyn will have a population of 5,000,000 in from twenty-five to thirty years. . . . [I]ts growth will not be checked until all the land in this borough now vacant has been built up." To be sure, the *Eagle* also asked: "How are they to be supplied with food without excessive charges for trucking and profits for a long succession of middlemen?" But like the City Plan itself, it had to leave the "problem of markets" for the future to solve.⁷

**FEEDING THE URBAN MASSES CHEAPLY:
VEGETABLE MARKETS AND
INTERURBAN FREIGHT TRANSPORTATION**

"A radish tastes infinitely better if eaten the very day it is picked."

— "The Garden's Fruit," *Economist*, February 22, 1997⁸

The president of the Brooklyn Committee on City Plan, Frederic Pratt, conceding that the plan failed to address the fact that distributing markets were not accessible to everyone in Brooklyn, argued for decentralization: "A large proportion of our vegetables and farm produce comes from Long Island. . . . [T]hat stuff is carted into the Wallabout and then brought back again into other parts of the city. There is an immense duplication of steps. All that could be done away with if, for instance, a market was located in East New York where the produce for that territory could be deposited without having to be recarted and redistributed." Unsurprisingly, neither Pratt in 1914 nor anyone else in the city plan movement dwelt on the origins of the distribution problem: the elimination of Kings County market gardens. Intriguingly, in the same year, another supporter of the development of Jamaica Bay, which bordered on Flatlands, pointed to the proximity of "extensive truck gardens" as satisfying the criterion of "readily and always obtainable food supplies with economical facilities for distribution," one of the essentials of an "ideal community."⁹

The apprehensions expressed by Pratt and others were rooted in long-perceived deep flaws in New York City's food distribution system, which formed as distant producers provided more and more of the city's perishable food, and the municipal government gradually abandoned its control over the produce markets. Writing shortly after World War I, the Federal Trade Commission observed: "Relatively to their actual needs and standards of life, the early New Yorkers and their markets were more 'modern'

than they have been since. New York City was well served when all its perishable food came from the neighboring farms." But in the intervening century: "The territory made tributary to the demand of the perishable produce market of the New York zone reaches from ocean to ocean. It even extends overseas to Belgium and Germany for Brussels sprouts, . . . cabbages; . . . to Great Britain for potatoes." But as locally grown produce shrank to as little as 5 percent of consumption: "The supplying of the needs of a great city is no longer the casual affair of farmers with their market wagons. . . . The whole industrial efficiency of the city is involved in this question of cheap food, and because New York is the great Atlantic gateway of the country the problem of the efficient feeding of New York City widens to a national problem."¹⁰

Such warnings did not originate in the wake of postwar dislocations and were not confined to New York City. In the first decade of the century, observers had urgently pointed to the need for urban reforms to check increases in the cost of living for the millions of workers concentrated in the newly industrializing large cities. James Sullivan, a reformer who had been associated with the National Civic Federation, an organization dedicated to class collaboration for promoting the peaceful development of industrial capitalism, understood that a "reduction in the cost of food, evidently, was of pressing interest to the masses, even more than lower street-car fares or reduced rates for gas, water, or electric light." With 45 to 60 percent of the typical working-class family's income spent on food, he concluded that "the most widespread reductions in the cost of living can come from cheaper prices for food." But since "only a small area of market gardens" remained within a twenty-mile radius of New York City, the vast bulk of produce, which had to be transported from afar, was subject to "the chaotic method of buying and selling" associated with multitiered intermediaries such as commission men, speculators, wholesalers, jobbers, lesser dealers, and retailers. He called "the hauling of the goods to and fro and back and forth from one set of dealers to another" a "part of the waste in a planless development."¹¹

Despite the exaggerated assertion that the development of freight and cold storage facilities had "placed the city nearer to the farm a thousand miles away than [*sic*] was the farm within the sight of the city's buildings a quarter of a century ago," proponents of spatial specialization had to admit that food costs rose with the distance between the city and its rural supply sites. The source of this increase was not higher transportation charges, but the more complex system for organizing distant shipments, which required

the compensation of more workers and greater risks. As early as 1912, food distribution inefficiencies were estimated to “cost the community between fifty and one hundred million dollars a year.” A few years later, a study revealed that New Yorkers’ daily consumption of fresh fruits and vegetables was materially lower than in other large cities. This reduced level, at a time (1923) when locally grown produce accounted for only one-tenth of the city’s consumption, was a consequence of higher food costs. Moreover, a contemporaneous study of land planning noted with respect to vegetables and other crops that “planning on a national scale would render a service to producers and consumers” in eliminating “a great deal of unnecessary shipping.”¹²

Some contributors to the debate over inefficient long-distance markets and unnecessarily high food prices did advocate increased local production. In 1913 the chief of the federal Bureau of Soils saw grounds for hope for lowering prices in New York City in the possibility of cultivating tens of thousands of acres of uncultivated agricultural land within a nearby radius. Such truck farms “could be made to supply to a great extent the New York markets with perishable foodstuffs which . . . would . . . not only relieve the question of the food supply of Greater New York but . . . to a large extent reduce the prevailing high prices for vegetables.”¹³

Sullivan’s proposal was even more specific. Pointing to outlying districts of Greater New York such as Bath Beach, Bay Ridge, Brownsville, Flatbush, and Flushing, as offering the same opportunities for local public retail markets as smaller cities, he suggested raising intensive crops on uncultivated land in these districts for the local market once sales were assured: “A beginning might be made in establishing any one of these markets by giving free scope to . . . market-gardeners . . . to hold open-air markets on two or three days of the week in the streets, or in open spaces owned either by the city or transportation companies, at points where the stream of travelers or other probable customers pass on their way.” What made this plan all the more breathtaking is that less than two decades after these very communities had lost their position as vegetable capital of the United States, Sullivan — himself a resident of Gravesend — made no reference to the fact that this “vacant land” had, until very recently, been teeming with market gardeners.¹⁴

The rationality of extreme geographic specialization of vegetable production was by no means a foregone conclusion even as late as the mid-1920s. The USDA reported that “the same quantity of coal burned in locomotives is required to haul vegetables grown on an acre in southern Texas

to the eastern markets as is necessary to heat an acre of vegetable-forcing houses located near the markets.” This macroeconomic consideration was matched by microeconomic competitiveness. Greenhouse production of vegetables had been relatively unimportant in 1890, but by the 1920s, the quality of greenhouse-grown tomatoes, cucumbers, radishes, and cauliflower created an increased demand that made it possible to compete with producers in warmer areas who shipped to distant markets: “Although it requires from 200 to 500 tons of coal to maintain an acre of greenhouse space . . . for the season, and other heavy expenditures are also involved, . . . the gross return per acre is several times that obtained from the most intensive outdoor-vegetable production.” These expenditures were largely offset by heavy transport costs and by the greenhouse grower’s ability to “place a severe handicap on shipped material through the production of a high-quality food product which can be marketed within a few hours from the time it is harvested.” Late-twentieth-century concern with the extravagant squandering of finite fossil fuels associated with transcontinental trucking of vegetables underscores the prescience of such analyses.¹⁵

At the end of the 1920s, Wells Sherman, the chief marketing specialist, in charge of fruits and vegetables, of the USDA’s Bureau of Agricultural Economics, impressively documented the fact that the reduced presence of nearby farmers did not mean that they could not compete with distant truck farms with regard to price and quality. Part of the underestimation of the vitality of local farming was a perception problem. He ascribed public ignorance of the extent of local vegetable production to consumers’ having become so accustomed to the availability of perishables from a distance that “we thoughtlessly assume that they have displaced the home-grown. . . . Therefore, we hardly notice . . . that many distant products almost disappear from many of our markets for the few weeks when the surrounding country is at the height of its season.” The transportation and packaging costs of getting distant vegetables to urban markets were so considerable that “many local products do sell for less during their season.” To illustrate the handicap of California competitors, Sherman cited celery growers near Boston, who “have continued in business until their lands actually went into use as suburban homes. These celery lands have not gone into nonproducing, speculative holdings. Competition . . . did not put them out of business.”¹⁶

With regard to quality, too, Sherman noted that freshness and maturity ensured that radishes, peas, green beans, sweet corn, and tomatoes “from a distance are among the products which practically disappear from most of our large city markets during the season of the local crop.” Because refrigeration

eration and transportation had not yet been “so perfected as to bring any of these products over journeys of several days in midsummer and deliver them to the consumer in as attractive condition as the home-grown,” consumers preferred the latter “simply because they are better.” On the basis of these “fundamental advantages,” Sherman concluded that a farmer located close to a large eastern market could “remain a market gardener . . . indefinitely.” Indeed, rather than harming the local farmer, long-distance shippers actually promoted his interests by accustoming consumers to prices that included cost components that were barely borne by local market gardeners. These prices to which consumers are “educated” during the longer nonlocal seasons were frequently “decidedly higher than the producer got for any considerable part of his crop in the days when distant competition was unknown.” That local farmers nevertheless often sold certain vegetables at lower prices than distant suppliers demonstrated their viability and profitability to Sherman.¹⁷

The real-estatization of New York City farms and their replacement by distant competitors freed up space for additional population while necessitating the importation of additional food for those new millions. From 1900, when the southern sections of Kings County, encompassing Bay Ridge, Bath Beach, Bensonhurst, Midwood, Sheepshead Bay, and Coney Island, were still the new city’s outskirts, until the Great Depression, land values rose more than tenfold in the course of a relentless struggle against “vacant,” “undeveloped,” and “unimproved” land. As the Mayor’s Market Commission of New York City noted in 1913: “The farming district around the city is not great enough or varied enough in its productivity or producing in long enough seasons to supply the needs of the city in any line. Suburban developments are all the time pushing the farm lands farther and farther away. It is impossible to alleviate conditions by establishing markets for producers to sell to consumers.” Because new modes of transportation had “brought the farms of South Carolina and Kansas as near New York City as were those of Long Island and Westchester County” a century earlier, the commission argued that they had “removed any limitations on the growth of the city imposed by the difficulty of getting an adequate food supply, and, as a consequence, the city has grown until it is dependent upon the production of a very wide area for its continued existence.”¹⁸

Local farms may not have been able to supply all the food needs of all of New York City’s inhabitants, and could supply only minimal amounts of any crop during certain months of the year, but these limitations constituted no compelling reason to eliminate their contributions altogether and

to crowd onto the former farmland even more inhabitants, who in turn, required even heavier reliance on transcontinental agricultural sources. The number of farmers' wagons unloaded annually at Wallabout increased almost unabated; by 1895 it had already exceeded 50,000, two and one-half times more than the number in the market's first full year of operation in 1885. During the busiest season, approximately one thousand farm wagons from farms within a forty-mile radius came daily to New York's three biggest markets, Gansevoort and Harlem in Manhattan and Wallabout in Brooklyn; the peak volume was 445 wagons at Wallabout in 1912. In contrast, one railroad alone averaged 100 carloads a day of food products all year round and 300 to 400 during the producing season.¹⁹

Even those who in the late 1920s ridiculed the intimation that it was "foolish for . . . New York City to use celery raised around Kalamazoo, Michigan," had to concede that vegetables such as asparagus, beans, cabbage, cucumbers, potatoes, sweet corn, and turnips were an exception to the rule that "only an infinitesimal part of the food supply of a large city can be produced within hauling distance." Despite his disdain for those who ignored the inexorability of "agricultural specialization according to conditions of soil and climate," agricultural economist Louis Weld was constrained to agree that interurban electric transport offered "great possibilities in extending the truck-garden area to distances of from twenty-five to fifty miles from our great cities, thus . . . enabling city consumers to draw a greater supply of fresh vegetables at some reduction in cost." Although Philadelphia, Cleveland, and Indianapolis had succeeded in improving transportation of farm produce in this manner, he saw the preexisting congestion of transportation facilities in New York City as a limitation on the development of trolley freight service there.²⁰

Here Weld echoed the findings of the Mayor's Market Commission, which had found trolley freight to be a "promising agency for local distribution." By shipping on trolleys, farmers could market their produce in fresher condition to parts of the city that railroad terminals did not reach. In particular, trolleys enabled farmers to market their produce directly to consumers at higher returns without having to neglect their production activities. In 1913, a farmer fifteen to twenty miles from Philadelphia, for example, required one day to drive to the market, a second day to sell, and a third day to drive home, thus losing half his week. Trolley freight would make it possible to load his produce at 6 P.M., take the train early the next morning, sell to consumers along the way or at the market, and to return early the next afternoon, thus "using but half a day instead of three, and

keeping his invested capital at home at productive work.” Freight trolleys’ dual advantage was their ability to stop from farm to farm in the country and to make possible the creation of numerous freight terminals in the city. Under such optimal conditions, market gardeners could, according to a contemporary reckoning, “support a family in comfortable circumstances” on two- to five-acre intensively cultivated farms located near large urban centers.²¹

Despite the unrealized potential for interurban electric farm freight transportation in the New York City area, transportation capital subverted the maintenance of urban agriculture. Wanting trunk lines to move freight in box cars, railroad owners encouraged the distant shipping of agricultural commodities. As late as 1905, the president of the New Jersey State Board of Agriculture complained that transportation cost was a major cause of agricultural depression in the urban eastern states: “It is not possible to have perishable products transported in such a way as to enable them to reach the consumer at a cost and in a condition that would allow the producer to compete with” distant producers. Urban railways, in contrast, wanted to increase local population in order to increase passenger traffic. Thus a politically imposed ceiling on population density to preserve agricultural production would have been a self-limiting way to develop more freight-oriented urban transit. But short-haul freight transportation was not feasible without subsidies, and these had already been preempted by a rapid transit system, which, in turn, had been the prerequisite for dumping the masses who were overcrowding New York City in what planners regarded as the the relatively “free space” that farms were occupying. In the event, interurban electric railways or the “farmers’ street car” succumbed to the automobile after World War I.²²

THE REGIONAL PLAN OF NEW YORK

The area of New York and its environs may be likened to the floor space of a factory. Regional planning designates the best use of this floor space.

— Robert Haig and Roswell McCrea, *Major Economic Factors*
in *Metropolitan Growth and Arrangement*, 1927

Not all early-twentieth-century planners were mesmerized by the inexorability of dichotomous urban-rural development. In 1917, Thomas Adams, a Scotsman who was then a town planning adviser in Canada and later the intellectual leader of the Regional Plan of New York, told the Na-

tional Conference on City Planning that although the growth of big cities could not be artificially restricted, it was possible to plan their expansion so as to preserve agricultural land for intensive culture around each population of 300,000–400,000. Cities growing beyond that size would be required “to leap over an area of open country, which should be protected by law from any form of building development. . . . This question of zoning cities so as to include agricultural zones . . . is not in the least fantastic, and in principle it has unconsciously been applied to many communities.”²³

At the time the most elaborate and extensive such urban survey ever conducted, the Plan’s *Regional Survey of New York* “remains the most thorough and ambitious single project carried out in the history of American planning.” Organized by financiers and businessmen, it was carried out under the auspices of the Russell Sage Foundation by the Committee on the Regional Plan of New York and Its Environs, which regarded congestion as large cities’ “most defective condition,” and conceded that the “restoration of a balance between agriculture and manufacture is of interest to New York.” Its preferred solution was merely “bringing more of the quality of the country into the city and more of the organized efficiencies of the city into the country.”²⁴

Despite the fact that farming was on the verge of vanishing in Brooklyn, Manhattan, and the Bronx by 1925, the *Regional Survey* conceded that in “Queens and Richmond there is still time for some land to be reserved for open forms of development including horticulture and truck gardens, if it were considered desirable, and a practical method could be devised for doing it.” One of the impediments to the articulation of a corresponding public policy was the perception by “the average city dweller [of] the existence of a farm or at least of any large acreage used for horticulture or agriculture within the environs of a city [a]s an anachronism.” In contrast, contemporary European attitudes toward urban farming were far more welcoming; for example, it was “accepted as practicable to keep large areas of farm lands within the borders of English cities. Taxation is adjusted to encourage cultivation of suburban areas.”²⁵

The *Regional Survey*, while denying that the “question of maintaining agricultural production near to New York in order to keep down the cost of food by saving in cost of transportation from distant sources of supply” was “of any immediate importance,” left open the possibility that further demographic centralization would become disadvantageous. At a certain point in its growth, the additional cost associated with transporting perishable food long distances “will become a serious factor in industrial competition

between the cities in the region and the smaller communities that are more accessible to the sources of food supply. Then this would be an important reason for giving more encouragement than is now given to the use of land for intensive cultivation in the neighborhood of New York.”²⁶

Even without pursuing the flaws in the city’s distribution system, the staff of the Regional Plan of New York and Its Environs was able to find an economic reason for reserving areas for cultivation within urban environs: it “would break up building masses into economically desirable units. It would bring city and country into frequent juxtaposition — with advantage to both.” The Regional Plan was optimistic enough to assume that, under proper management, land that a public authority acquired for the public welfare at a reasonable price to rent for farming could yield a rent greater than it could raise in taxes from the same land operated privately by a farmer. The Plan even identified plausible localities for such intervention where urbanization and speculation had not already made it “too expensive” for the City of New York “to acquire for profitable cultivation”: “Opportunities are still available in the boroughs of Queens and Richmond for reserving areas that are suitable for cultivation and are comparatively isolated from means of transit.” The Regional Plan’s realism, however, forced it to recognize that since “the needs of the potential population of these two boroughs, in the matter of recreation space, are such that the cost of acquiring park space will probably be as much as the city can reasonably afford, there is little prospect of any open areas being acquired within the city in addition to those needed for pleasure parks and active recreation.” In a memorandum prepared for the Plan, Frederick Law Olmsted Jr. even raised the possibility of subsidizing “some types of agriculture . . . to remain there [in “open” regional districts] for reasons of public policy.”²⁷

In a similar vein, at the end of the 1930s, the New Deal National Resources Board still emphasized that because “probably no region on earth possesses such an enormous and immediate city market for its products . . . it has . . . been profitable to fertilize relatively infertile lands and to expand the production of crop specialties” in the vicinity of New York, Boston, and Philadelphia. The possibilities that still existed at this time (1934) are underscored by the fact that 9 percent of Brooklyn was still vacant land — the lowest proportion among all the outer boroughs and far below that of Queens (23 percent) and Richmond (41 percent).²⁸

Not even the Regional Plan, however, fully recognized that city farms had not been mere productive havens, but, like the Cortelyou farm in Flatbush, also habitats for otter, fox, opossum, raccoon, muskrat, wild duck,

high-holders, woodcock, snipe, and quail. After recounting this fact, the developer Henry Meyer, as responsible as anyone for destroying their niches, had felt it necessary to add as early as 1901: "One can hardly imagine such a condition of wildness existing in the very heart of Greater New York, but I beg to assure you that these are facts."²⁹

STATE POWER AND URBAN LAND-USE PLANNING

Exclusive farm use zoning . . . justifies incentives and privileges offered to encourage owners of rural lands to hold such lands in exclusive farm use zones.

— Oregon Revised Statutes, sect. 215.243(3) & (4) (1996)

Given the favorable natural and market conditions for intensive vegetable farming in the New York City area — Long Island's "exceptionally fine climate" gave it a seven-month growing season compared to five months on the mainland — the *Regional Survey* found it "extraordinary that a higher percentage of rural population has not been maintained." It found the causes in special counteracting forces in the Greater New York region: a tax system based on urban land uses that made farming unprofitable, and "a sense of instability resulting from the expectation that the land will be required for building . . . or . . . speculative purposes." The kinds of agricultural tax preferences, districts, and development rights that New York State and other states have enacted in the latter part of the twentieth century can deal with these obstacles to close-in farming.³⁰

Collective action to protect farmland on behalf of urban communities may seem to have been outside the realm of political discourse available to nineteenth-century New York, but the state was capable of intervening to block capital's access to certain types of land. For example, the legislature passed an act to prevent the sale of lands used for cemetery purposes, and the 474 acres of Greenwood Cemetery, which, lying between the farming area of Gowanus and Flatbush, at the end of the twentieth century still pre-empts an enormous parcel of Kings County, have been withheld from commercial exploitation since 1840, when it was more extensive than any similar institution in the United States or Europe. If the state could clog the real-estate market for huge blocks of urban land locked up in cemeteries so that "land, once devoted to burial purposes, becomes sacrosanct in its nature, the subject of taboo, and is excluded from the purposes and traffic

of the living,” why not for profitable and food-producing farms? After all, Greenwood Cemetery itself was once farmland. The force of the taboo is readily visible in the fact that although urban cemeteries, which in some cities such as Queens occupy most of the open space, are “the most frustrating” for planners, they have only “toyed with the thought of all the good things that could be done” if the cemeteries could be relocated: “Those who are wise have kept the idea to themselves.”³¹

Ironically, in the 1870s, even cemetery promoters were such forceful urban boosters that they could not imagine that their own creations would remain undisturbed forever. Robert Criswell, the general agent of Washington Cemetery and the son-in-law of James A. Bennett, a New Utrecht farmer who in 1853 had conveyed 100 acres to the cemetery, predicted that the removal of Greenwood Cemetery “some time before the year 2,000 is about as certain, as that the sun will rise to-morrow.” But then within another century, according to Criswell, the dead in Washington Cemetery, too, would have to be dug up to make way for New York City as it inexorably expanded “until it meets the waves on Coney Island Shore.”³²

While Swedish and German cities were “buying great tracts of land both within and without their borders and . . . holding them for the citizens,” public shaping of real estate remained taboo in New York. As Florence Kelley, the leading advocate of state intervention on behalf of sweated laborers, observed in 1908: “[W]henver it is suggested that the city might well buy large tracts of land to mitigate the hardships inflicted by the landowners, it is assumed that this is impossible. . . . It is honestly believed by persons of sound mind, that . . . enough wise and honest citizens cannot be found to administer tracts of municipal land as disinterestedly and as wisely as our schools and our water supply are administered.”³³

New York City, like most U.S. cities, was severely handicapped by its ownership of meager amounts of land: “In America most cities were and are forbidden by statute and state constitution to enter the private land market freely.” An alternative to the dominant American plan had emerged in Europe, where the exercise of public control and cooperative forms of investment were less unusual. Municipalities in Scandinavia, Germany, Austria, and the Netherlands in the nineteenth and twentieth centuries owned huge areas both within and outside the city limits. By the beginning of the twentieth century, progressives chafing under the powerlessness of U.S. municipalities to engage in comprehensive planning pointed to German cities as models. Frederic Howe, perhaps the leading reformer to advocate a planned

urban democracy, traced the fecklessness of the city planning movement to “our unwillingness to face . . . the unchecked license of the landowner, the unrestrained freedom of property in all its forms. Thus far, city planning in America has limited its vision to those sides of the question which do not conflict with the claims or abuses of private property.” In contrast, German cities, recognizing that city planning was “fundamentally a land question,” based their planning “on a thorough control of the land within” and outside of their limits. The transition to municipal land-ownership was facilitated by the venerable tradition of German villages’ owning “forests and other land in common, and . . . us[ing] it for . . . forestry and agriculture.” Indeed, one of the first acts of a German town upon receiving official urban status was “to buy as much land as possible for the purpose of meeting all conceivable public needs, present and future.”³⁴

Berlin was the leading practitioner at the beginning of the twentieth century: it owned land amounting to 240.8 percent of its total area including large tracts outside its boundaries. Other German cities were also large landowners: in 1901–2, for example, Frankfurt owned 57.8 percent of the land within its limits. As a result of such ownership, German cities could “anticipate their future needs in a far-sighted intelligent way. Before a new territory is opened up for residence, the city authorities acquire land for playgrounds, gardens, and sites for . . . public buildings. The purchase of these lands, far in advance of the city’s growth, saves the city from prohibitive prices and . . . makes possible the most generous provision for recreation and open spaces.”³⁵

Stockholm was perhaps the most prominent example of municipal planning. Beginning in 1904, the city assembly bought large areas of farm and forest lands outside the city to build garden city suburbs. It also extended its boundaries so that the city limits encompassed the new suburbs. “Some of these areas lay idle for as long as 20 years before they were developed, but the city reaped the benefit of having acquired them at very low cost.” Stockholm was thus able to enlarge the supply of good but cheap dwellings by making cheap building sites available. In the 1930s, Manchester, England, created a unique satellite garden town within the corporate limits of an industrial city by buying several thousand acres of rural land at agricultural land prices and incorporating Wythenshawe. The municipality was driven by the need to construct housing for families from overcrowded sections of the city, yet its first town planning measure was to establish a 1,000-acre agricultural belt within the 5,500-acre ward.³⁶

By the 1930s, too, Copenhagen owned one-third of the total land area for building; Oslo owned a suburb twice as large as the city; The Hague owned 45 percent of the city area; Vienna owned more than one-fourth of the city area; Berlin owned both one-third of the city and another 75,000 acres of forest and farmland outside the city. Larger German cities (with more than 50,000 inhabitants) owned on average almost one-fourth of their municipal territory (not including streets) in contrast with less than one-tenth among similar-sized U.S. cities. In addition to such purposes as parks and public buildings, which were common in the United States, large German cities held extensive agricultural estates and forest; indeed, 40 percent — 50 percent in Berlin and the cities with more than 200,000 inhabitants — of the land that they owned in the mid-1930s was agricultural. In the United States, in contrast, even during the New Deal, proposals that the national government help fund metropolitan housing authorities' acquisition of outlying land were decried as socialistic.³⁷

Garden city movements, which originated in England and Germany at the end of the nineteenth century, also confronted the urban displacement of agriculture in the nearby country, rendering the farmer a conservator of the greenbelt, rather than a recycler of wastes. Ebenezer Howard's basic idea "was to combine the advantages and eliminate the disadvantages of living either in the city or the country in an entirely new entity." Garden cities would absorb the city's population overflows in smaller, self-sustaining communities consisting of a 6,000-acre municipally owned estate, the inner core of which would be occupied by a 1,000-acre city of 30,000 inhabitants. Designed to combat urban congestion and rural depopulation by integrating agriculture into the city and preventing sprawl of the urban core, garden cities were linked to one another and to the metropolis by convenient rail lines. In seeking to demonstrate that the prevailing rigid division of agriculture and industry and town and country was unnecessary, Howard imagined that on the outer 5,000 acres farmers engaged in vegetable and other production would benefit from urban demand for their products and the city's supply of its own waste products for fertilizer.³⁸

Howard's innovative financial plans for the garden city undermined the spread of his ideas to the United States. His conception of the city was one of cooperative ownership: the developers would acquire the land "on behalf of the municipality, at agricultural prices. . . . The local community therefore had control of land in the green belt and could determine the nature and extent of urban growth." Howard developed this idea in the form of a

land bank that would ensure “that the benefits of enhanced value . . . went to the community as a whole. In the United States, recognition of the value enhancement phenomenon encouraged real estate developers to agglomerate masses of land surrounding the original planned community.” This tension between the community’s future and the developer’s profit subverted the introduction of Howard’s ideas in the United States. Despite influential backers among urban planners and sociologists, by the First World War, garden city “advocates began to recognize what Edward Bellamy’s followers had learned somewhat earlier — that communal ownership of real estate cut against a very tough American grain” because it “smacked of socialistic or communist conspiracies.”³⁹

Because the farmer was not part of the urban vision in America, farming as a meaningful urban-fringe activity receded from serious consideration among city and regional planners. To the extent that Howard’s garden city movement — with its vision of the urban farmer as the guardian of the greenbelt — became influential in America, it did so too late to save the farmers in Kings County, or even in neighboring Queens. Thomas Adams continued to hold out hope for urban farmers as late as 1922: “The control of the development of land is essential to this solution of the problem of congestion. Large areas of land near and within cities can be more economically used for agricultural production than for building, because their levels are such as to make the cost of conversion into building land and construction of local improvements excessive in comparison with the values they create for building purposes.” But Adams’s expectations were not realized despite the intervention of the federal government’s greenbelt town program during the New Deal. The federal initiative failed because of the political and ideological animus against publicly controlled enterprise and “the program’s radical challenge to fundamental patterns of urban growth and real estate practice.”⁴⁰

Instead, under the pressure of mass misery and discontent, a phenomenon akin to the settlement house approach emerged: fragmented mini-farming inside the boundaries of the metropolis. For example, just as the dissolution of Kings County agriculture was intensifying and reaching its peak during the panic and depression of 1893–95, a community gardens movement sprang up in cities such as New York and Detroit to employ and feed the unemployed on vacant city lot farms. The mayor of Brooklyn appointed a Committee on the Tillage of Vacant Lands, whose work was carried out by the Brooklyn Bureau of Charities, while the German American Improvement Company granted use of its land in New Lots. In addition to

the Bureau's four-acre common garden, 91 one-eighth-acre plots were assigned to as many gardeners, who, with fertilizer, seed, and tools supplied by the Bureau, grew vegetables.⁴¹

BEYOND THE REAL ESTATE MARKET

If market value at a given time is the criterion, . . . parks . . . might lose out. Home sites could give way to industry.

Through the postwar years of sprawl, farms often seemed to be worth more growing a crop of houses than a crop of strawberries. . . .

But looking at the long-term economic impact, land may contribute more to the economy left in agriculture than subdivided for homes.

— Jerry Tippens, "What's Highest and Best in Long Run?"

Portland Oregonian, June 11, 1990

It has taken most of the twentieth century to bury and disinter the insight that the market does not always know best, and that, as a real-estate man noted, "highest and best use" might need to be qualitatively redefined to incorporate "the overall economic scheme of things, rather than the use which will produce the highest monetary return." In 1971, for example, the New York State legislature created local structures "to assure farmers who wish to remain in farming that many of their neighbors will do likewise." Two years after the state constitution had been amended to make it the "policy of the state . . . to . . . encourage the development and improvement of its agricultural lands for the production of food and other agricultural products," and to direct the legislature to "include adequate provision for . . . the protection of agricultural lands," the legislature amended its Agriculture and Markets Law to create agricultural districts.⁴² In explaining its intent, the legislature declared that:

Agriculture in many parts of the state is under urban pressure from expanding metropolitan areas. This urban pressure . . . brings conflicting land uses into juxtaposition . . . and stimulates land speculation. When this scattered development extends into good farm areas, ordinances inhibiting farming tend to follow, farm taxes rise, and hopes for speculative gains discourage investments in farm improvements. Many of the agricultural lands in New York state are in jeopardy of being lost for any agricultural purposes. Certain of these lands constitute unique and irreplaceable land resources of statewide importance. It is the purpose of this

article to provide a means by which agricultural land may be protected and enhanced as a viable segment of the state's economy and as an economic and environmental resource of major importance.⁴³

The legislature defined “[u]nique and irreplaceable agricultural land” as “uniquely suited for the production of high value crops, including, but not limited to fruits, vegetables and horticultural specialties.” Such land located in agricultural districts created pursuant to the statute became eligible for assessment only on the value of the land as used for agricultural production. By 1987 8 million acres, or one-fourth of the state's total land area, had been included within such districts. The program arrived almost a century too late to preserve the locationally unique Kings County vegetable farms, but revealed that the market may not know best after all. That the pull of the market is not inevitable continues to be demonstrated by metropolitan-area farmers who farm in spite of knowing that “I could make a lot more if I sold the farm and lived off the interest.”⁴⁴

In 1975 Suffolk became the first county in the United States to implement a nationally recognized purchase of development rights program, under which farmers are compensated for restrictions placed on the use of their land with an amount of money equal to the value of the foregone development potential. On the 6,000 acres that have become part of the program, the county has acquired nonagricultural development rights, which are valued as the difference between the market value of the land at its “highest and best use” and the value of the agricultural rights.⁴⁵

Elsewhere, too, governments have intervened to preserve metropolitan farming. Maryland combines the purchase of development rights from farmers with government assistance of metropolitan farming. The Howard County agricultural marketer encourages farmers to convert from cattle, soybeans, and hay production to fruit and vegetable cultivation for the local fresh market. By 1996, 15 chiefly northeastern and mid-Atlantic states had paid farmers to keep their land in agricultural use. At a cost of about \$1,750 per acre, these programs had sheltered 420,000 acres, thus proving that “an iron law of the real estate market . . . can be bent a bit.”⁴⁶

This retrospective of the inevitabilist interpretation of the displacement of urban farming also coincides with the resurgence of a late-twentieth-century worldwide movement toward urban agriculture that confounds planners' dichotomous conceptualization of land-use boundaries. Especially as environmental interest in methods of sustainable agriculture has become linked to communitarian concerns with fresh fruits and vegetables

grown locally and harvested on site by consumers or sold face to face at farmers markets, urban farming has found a new resonance.⁴⁷

A brief survey of a few of these recent initiatives will be useful. Some implement one of the central purposes of the turn-of-the-century garden city movement — preserving a permanent agricultural belt around the city in order to limit its growth. In a pioneering struggle against urban sprawl, the state of Oregon, from the late 1970s on, created urban growth boundaries to separate urban and rural land. The city of Portland “drew a line around the metropolitan area” on one side of which the city and on the other farms, forests, and open space were located. Many firms moving to Portland explain their decision by reference to the presence of fruit orchards “just across the street from contained urban areas.” Thus far the city has refused to “give in to industry demands to open up forests and farms to sprawl.”⁴⁸

The declining population of many of the largest U.S. cities toward the end of the twentieth century and the appearance of thousands of vacant lots have reawakened interest in urban farming as ecologists have pointed out that transcontinental transport of fruits and vegetables uses considerable quantities of fossil fuels while reducing their nutritional value.⁴⁹ In the 1960s, the major geographic study of the Boston-Washington corridor underscored close-in farming’s vitality:

Horticultural specialties are grown on the most expensive farm real estate. They are commonly produced on the very edge of the largest cities, sometimes within the cities themselves. . . .

To some extent this same principle applies to that kind of market gardening that is not easily mechanized or otherwise subject to cheap mass production. Many growers of melons, bush fruits, squash, peas, beans, lettuce, and tomatoes rent land within city limits, land that is waiting development. . . . Staten Island . . . still has 60 commercial farms that together produced specialty crops worth nearly \$1 million in 1956. Some of the more popular Chinese and Italian restaurants in New York City operate their own vegetable farms on near-by Long Island.⁵⁰

In 1964 60 percent of U.S. vegetable production was concentrated in Standard Metropolitan Statistical Areas. The USDA offers this explanation of the persistence: “Some types of agriculture tend to be carried out near centers of population. This is particularly true of bulky or perishable products that have few climatic or soil constraints, such as . . . vegetables. When fruit and vegetable farms are sold for nonagricultural uses, the operator of-

ten moves just a little farther out and resumes production. Thus, fruit and vegetable production tends to remain concentrated in urban areas even as cities expand.”⁵¹

The fragility of a food system based on the principle that distance and durability can overcome place and time has given new life to the conviction that it may not, after all, be rational to produce 40 percent of the country’s fresh produce in California “while agricultural land around some cities falls into disuse,” and led to a recrudescence of metropolitan food production and big-city farmers markets. The establishment of a Greenmarkets program in New York City in 1976, resulting in the creation of numerous farmers markets in the Bronx, Brooklyn, and Manhattan at which farmers from upwards of one hundred miles away sell directly to consumers, highlights the latter’s concern with the freshness and unimpaired nutritional value of their produce. Rising energy costs in the late 1970s and early 1980s — when transportation and direct energy use alone accounted for 14 percent of the price of food — also prompted some large firms to undertake to produce lettuce indoors close to large cities more economically than it can be produced in California, Texas, and Florida and trucked to distant consumers.⁵²

Recent years have also witnessed efforts by environmentalists to spare the eastern part of Long Island the relentless but unplanned encroachment of suburban sprawl that engulfed its western end a century earlier. In 1982 the ecologist Barry Commoner and associates at the Center for the Biology of Natural Systems at Queens College issued a study proposing that farmers in Suffolk County shift production from potato monocropping to certain vegetables (broccoli, carrots, cauliflower, celery, lettuce, green peppers, and tomatoes) that they could market more cheaply in the New York City area than the dominant California and Florida producers, whose prices reflected significant costs of environmentally damaging long-distance transportation. In addition to offering greater freshness, locally grown crops avoid the reduction in nutritional value (particularly regarding vitamins) associated with long transport routes.⁵³

And finally, offering the faintest glimmer of the agro-urban past, the late 1970s also witnessed the rise of Green Thumb community gardens in New York City. The thousands of gardeners who cultivate the 75 acres that make Brooklyn the leading borough are motivated by the dual objectives of community improvement and fresh vegetable harvests.⁵⁴

Kings County agriculture successfully adapted to one set of economic pressures by making the transition in the post–Civil War period from extensive grain and cattle farming to intensive vegetable production. By the

1880s, however, those adjustments came under attack from distant producers whose vegetables, thanks to new transportation and refrigeration technologies, streamed into New York markets during seasons when outdoor production was not possible in Kings County. Under the best of circumstances, Kings County farmers might have been able to weather this competition. Survival would have required urban planning and control initiatives such as tailored tax policies and land-use restrictions. Such state intervention would have had to include centralization of population controls, railway construction, and promotion of less odoriferous and noisy technologies more congenial to residential settlement. Finally, government financial assistance might have been needed to make it possible for low-income (especially immigrant) workers to operate farms as tenants or farmers at a time when the traditional farming groups no longer wished to devote their lives to market gardening.

But what happened to farming was not the best of circumstances. The process was rigged in favor of congested land development and its quasi-universal effects. This form of urbanization foreclosed the possibility of creating an urban lifestyle that proponents of urban farming today and even in the 1910s and 1920s recommended. New York and other cities thus forfeited numerous other possibilities for balanced population growth, more diverse and integrated self-sufficient urban economies, interurban public transportation, and less costly environmental pollution controls. To be sure, the inevitabilist thesis of the market-driven demise of close-in farming is not baseless. However, a broader interpretation shows that considerations neglected by the market were weighty enough to have justified policy initiatives to avoid the macrosocial irrationalities generated by thousands of self-regarding microeconomic decisions. In Central Europe, where governments applied greater controls and the population was spread more rationally, cities have proved to be more livable. In the United States, where “there is a huge vested interest in raising hell with nature, and there is very little money — in fact none at all — in letting well enough alone,” mobilizing state intervention to preserve urban agriculture lacked adequate political-economic constituencies.⁵⁵

