

Developing and financing the 'garden metropolis': urban planning and housing policy in twentieth-century America

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This article examines the evolution of garden city ideas in the United States during the twentieth century. It distinguishes between four sets of goals: environmental reform; social reform; town planning, and regional planning. Much of the literature on American garden city movements focuses on the general political failure of its advocates to achieve key social reforms and regional planning objectives. By contrast, the accomplishments in environmental reform and town planning have been far more successful. Though Ebenezer Howard's proposals did not lead to widespread adoption in their purest form, urban decentralization and sub-urbanization have produced significant improvements in the building of higher-quality and lower-density housing and in providing more open space and greenery for a large segment of the population. This pattern of planning and development may be viewed as 'the garden metropolis.' Its relationship to garden city ideas is best symbolized by the central role of Thomas Adams, the British planner who served as a leading proponent of the garden metropolis in the United States. Many of Adams' policy recommendations, including his strong support for mass home ownership initiatives, were later implemented by the Federal Housing Administration beginning in 1934. The FHA, through its mortgage insurance programs, its property and neighborhood standards, and its Land Planning Division, was extremely influential in shaping the growth of the garden metropolis, especially during the 1940s and 50s.

Introduction

The central logic of American housing and planning history during the past century has been a privatized adaptation of various garden city ideals. Instead of collective ownership of land, there is individual ownership. Houses are built for owner occupancy rather than rental. The single-family detached houses have their own private lawns, not common green space. Jobs are not balanced with housing in one community, and communities are not separated by permanent greenbelts; metropolitan sprawl characterizes the journey to work and the endless string of suburbs. Streets and automobiles and shopping malls are the focal points of community life, much more so than parks or civic centres. Yet despite these and many other differences, the American project of creating communities in a garden-like setting, a low-density urbanity of one-

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or two-storey dwellings surrounded by trees and lawns, has succeeded for a large segment of the population.

An enormous mobilization of public and private resources and a vast array of institutional changes were behind the efforts to create a 'garden metropolis'. This includes the system of institutional mortgage lending, the federally-supported long-term private credit that created a mass market for new single-family housing and made possible large-scale development by 'community builders'. It also includes public and private land planning and land-use regulations through such devices as zoning and subdivision controls, deed restrictions and design review. The financing and development of infrastructure and provision of essential services, the creation of highways and transportation systems, the tax subsidies, the private governments of home owner associations, and the economic and political evolution of the real estate industry are among the many important factors that contributed to the structure and growth of the garden metropolis.

Despite its limitations and drawbacks, this combination of explicit public policy and private market-orientated activity has produced a lower density, greener and better quality housing and community environment than was available for the average American in 1900, or even in 1947, the year the first Levittown opened. Creation of the garden metropolis was the joint realization of a long-term vision shared by urban planners, government officials, real estate developers, mortgage lenders and the vast multitudes of willing home buyers[1].

Four key issues

Much of the difficulty in interpreting the history of the garden city idea and movement is that it exists in four distinct worlds: environmental reform, social reform, town planning, and regional planning. Environmental reform involves improving the physical living conditions of a group of people through better housing, lower densities, more open space, and other factors. Social reform is concerned with promoting greater economic equality, political democracy, community empowerment, public ownership and a wide range of additional goals. Town planning for 'cities with gardens' is focused on the arrangements of land and buildings within cities and towns, systems of transportation, recreation and related matters, at a local level. Regional planning for 'cities surrounded by gardens' is much broader in geographic scope, encompassing the arrangements of land and buildings not only within but especially between cities and towns. Regional planning is more interested in the external rather than the internal aspects of communities.

These four categories are important in understanding the history of the garden city movement not only in the United States but around the world, because some of the most ardent supporters of the garden city ideal were motivated by a vision of social reform and regional planning, yet in many cases what was actually achieved was primarily in the realm of environmental reform and town planning. In most countries these achievements took the form of creating what were called 'garden suburbs', communities that were limited in number and size. In America the pattern of garden suburban development became so widespread and common that I call this phenomenon the 'garden metropolis'.

What is missing from America's garden metropolis? In terms of the type of regional planning first schematized by Ebenezer Howard's system of 'social cities' and later revised and expanded

through the writings of Lewis Mumford, Clarence Stein, Henry Wright, Benton MacKaye, Stuart Chase and others affiliated with the Regional Planning Association of America (RPAA), the 'garden metropolis' is the antithesis of their preferred system of comparatively small, decentralized population and employment centres surrounded by carefully preserved green countryside. The garden metropolis, while displaying an abundance of green lawns called the 'crabgrass frontier' by Kenneth Jackson, is nevertheless lacking in large planned greenbelts to separate completely rural from urban land[2].

By the standards of social reform, the garden metropolis has diverged sharply from the path prescribed by the more radical of the garden city enthusiasts. Private property reigns supreme in the garden metropolis, with community interests expressed through exclusionary zoning, restrictive covenants and property owners' associations to promote class and race segregation. Real estate speculation and development for profit, with political support and financial backing from government officials in pursuit of higher property values and economic activity, is the engine that drives the metropolitan growth machine, not redistributive policies for economic equity or social justice.

Yet in terms of environmental reform and town planning, many of the most important garden city ideas have been incorporated, adopted and implemented through the construction of the garden metropolis. Indeed, the same desire to create 'a decent home and suitable living environment for every American family' that motivated Alexander Bing's *City Housing Corporation* to build Sunnyside and Radburn and Rexford Tugwell's Resettlement Administration to build Greenbelt, Greendale and Greenhills, also motivated Philip Klutznick's American Community Builders to build Park Forest and Abraham, William and Alfred Levitt's family firm to build the three Levittowns.

The garden city tradition in American planning history

In the United States, the grand vision of societal reconstruction first articulated in England by Ebenezer Howard and later popularized in America by Lewis Mumford and other writers and planners has captured the imagination of several generations of urban theorists and community activists. Most historians have described and evaluated the activities of American garden city proponents in the context of broad social reform and regional planning goals, drawing a great deal of inspiration from their efforts, but primarily finding failure in their results.

Looked at in the context of environmental reform and town planning, however, the story comes out quite differently. The main outcomes represent the successful accomplishment, though in significantly modified form, of some of the key goals advocated by garden city supporters. Between the period of the two World Wars, planners and policymakers initiated new ideas and institutions that helped produce the garden metropolis, which by the 1950s meant better houses, lower densities, more green space and other natural features of the landscape available for a much larger share of the urban population than at any time since the beginnings of large-scale industrialization in the 19th century.

The literature on the evolution of America's garden city movements up to the 1960s focuses primarily on two main episodes: Radburn in the late 1920s, and the three federal greenbelt towns in the 1930s. Some writers also discuss as direct predecessors Forest Hills Gardens just before the First World War, Sunnyside Gardens in the middle 1920s, and the new subdivisions of small

houses for war workers built by the US Housing Corporation and the Emergency Fleet Corporation in 1918. Both the greenbelt towns and the war housing villages were under public ownership, which was one of the key reasons why they were so politically controversial. As models of urban or suburban development, the idea of government as landlord never caught on in the USA and in both cases was quickly abandoned[3].

Forest Hills was built in 1911 as a philanthropic venture by the Russell Sage Foundation. This fashionable suburban-style New York community later served as the inspiration for Clarence Perry's 'Neighbourhood Unit' idea in the 1920s and 30s. The main influence of Forest Hills and of the neighbourhood unit was on physical planning and design standards, not on political or social reform[4].

Sunnyside and Radburn were privately owned and developed by the City Housing Corporation, a limited dividend enterprise. In this aspect of their structure they were more akin to Ebenezer Howard's original scheme. Sunnyside, however, was far too small even to be called a garden suburb, and Radburn, cut short by the onset of the Great Depression, never achieved more than a modest portion of its original plan. In neither case did establishing these new neighbourhoods directly lead to vast societal changes as hoped for by some of the founders, planners and publicists affiliated with the Regional Planning Association of America[5].

Radburn's real impact in the United States was much more in the environmental than the social realm. Clarence Stein and Henry Wright's innovative land plan for Radburn set a new standard of design that, while not often imitated in all of its particulars, served as a general inspiration for more attractively planned suburban development. In this sense it paralleled the history of English garden cities, where Ebenezer Howard's social utopia was largely transformed into Raymond Unwin's and Barry Parker's environmental legacy of small house design and lower density planning, and where the garden city as a physical example of working-class housing helped pave the way for the garden suburbs[6].

While most writers emphasize Radburn's discontinuity with subsequent American urban development except for the greenbelt towns, one perceptive analyst, Eugenie Birch, has stressed the widespread acceptance by urban planners and large-scale developers of various physical features of the Radburn plan[7]. Birch demonstrates Radburn's continuity with other development ventures, but most importantly with the land planning methods encouraged by the Federal Housing Administration (FHA). For example, *Planning Neighborhoods for Small Houses*, a 1936 FHA manual for developers and builders demonstrating innovative practices in subdivision development, features Radburn in an illustration with the caption:

The Radburn type plan showing a series of cul-de-sacs grouped in a superblock around a central park. The traffic highways border the superblock. The houses face the front yards and parks rather than the streets. The cul-de-sac roadways are service drives and give access to the rear of the houses. Traffic passes by rather than among houses[8].

The RPAA-FHA connection is vital because, as a national mortgage insurance agency, the FHA played a crucial role in spawning the modern suburban garden metropolis of small detached houses and lots for modest income families. The central contribution of Radburn to what would later become FHA's land planning philosophy was clearly summarized by Clarence Stein in 1930:

The more I think of what has been happening in the field of housing in this country during the last decade the more strongly I feel that the essential lack has been our inability to see that the house itself is of minor

importance. Its relation to the community is the thing that really counts . . . It is not only the fact that a small house must depend on its grouping with other houses for its beauty, and for the preservation of light, air, and the maximum of surrounding open space. What is probably more important is the economic angle. It is impossible to build homes according to the American standard as individual units for those of limited incomes. If they are to be soundly built and completely equipped with the essential utilities they must be planned and constructed as part of a larger group[9].

Thomas Adams as a central figure in the American adaptation of garden city ideas

The theme of continuity in adapting garden city goals to the American political economy is best illustrated by examining the career of Thomas Adams[10]. Adams was an early leader of the British garden city movement who later became a central policy spokesman and enthusiastic advocate in America for promoting more widely available and better quality home ownership and suburbanization through new methods of residential community planning, development and financing.

As founding secretary of the Garden City Association and the initial manager of the first English garden city at Letchworth, Thomas Adams was an enthusiastic organizer of the garden city movement in its early days, and he remained a lifelong supporter of the idea. At the same time, he was very pragmatic in his approach to urban planning and development issues, and thus was not rigidly wedded to Ebenezer Howard's formula. Adams was less interested in social reconstruction than in finding ways for the working class to obtain better housing at lower cost. He believed that a worker's family house, as much as possible, should be a detached dwelling on a small plot of land with a private garden, and should be owned by its occupants. For Adams, the main goal was low-density, low-cost, mass home ownership, and garden cities were just one of many different means for achieving this vast environmental and social reform.

In his capacity as director of construction at Letchworth, Thomas Adams was seriously concerned about the lack of affordable housing for workers, since most of the houses being built privately in the new town were for middle income families. Adams attempted to promote more housing for low income workers through special financing arrangements and by co-sponsoring the Cheap Cottages Exhibition of 1905. While neither of these schemes were notably successful, Adams continued throughout his career to push for improving housing and home ownership opportunities for workers through coordinated decentralization of industry and residences, better and lower density land planning, stricter land-use controls and new and lower cost methods of large-scale land development, housing construction and mortgage financing.

Adams' biographer, Michael Simpson, accurately characterizes Thomas Adams' outlook on planning and development from the early days of his career in 1905:

The trend was towards garden suburbs, a bastard form of Howard's vision and indeed contrary to it in that they would exacerbate the urban sprawl he sought to eliminate. Nevertheless, their widespread realization promised better environmental conditions for many and the movement could hardly condemn that. Ever a realist, Adams recognized that Letchworth's financial difficulties would render it an only child and believed that the association, while still committed to 'taking initial steps to establish Garden Cities', should promote the 'scientific' development of existing towns and the planned decentralization of industry and population. When Hampstead Garden Suburb was founded, he counselled, 'Let the Garden City Association as the parent body, look with equal favour on all its offspring and welcome the suburb and the

village as well as the city, so long as its principles are maintained.' In thus broadening the scope and therefore the appeal of the association, Adams launched it on the path which was to make it the principal voice of town planning in general and laid the basis for its eventual transformation into the modern Town and Country Planning Association[11].

More than any other urban planner operating in North America, Thomas Adams, the British garden city advocate, was the most articulate and energetic spokesman for the objectives and policies that supported the creation of a garden metropolis in the United States. In his roles as general director of the New York Regional Plan during the 1920s, as a member of the Committee on City Planning and Zoning for the 1931 President's Conference on Home Building and Home Ownership in Washington D.C., as a leader of the American City Planning Institute and the National Conference on City Planning, and as a professor of planning at Harvard and M.I.T., Adams pushed for suburban home ownership through new public and private approaches to planning, regulation and financing[12].

Thomas Adams and his colleagues explained their vision of a garden metropolis and the methods of achieving it in several important documents published as part of the New York Regional Plan, including chapters 6–8 of the 1931 Plan's second volume, *The Building of the City*, and in four key monographs of the Regional Survey: 'Housing Conditions in the New York Region', 'Problems of Planning Unbuilt Areas', 'The Character, Bulk and Surroundings of Buildings', and 'The Neighborhood Unit', Adams supplemented this series of well-documented arguments for mass home ownership and suburbanization with two important studies for the Harvard School of City Planning: *Neighborhoods of Small Homes* (co-authored with Robert Whitten in 1931), and his classic *The Design of Residential Areas* published in 1934[13].

Reading Adams' 'Housing Conditions in the New York Region', and particularly the chapter on 'Home Ownership in the Region', one is struck by Adams' strong opposition to tenancy rather than owner occupancy. He continually warned against the dangers of the growing numbers of renters, claiming that renting bred a lack of responsibility for the adequate maintenance of housing and the urban environment. Owning one's own home, on the other hand, was characterized by Adams as the best possible promoter of economic, social and civic responsibility and virtue.

Even where apartments were owned by their occupants through cooperative ownership, Adams was still not satisfied, as he greatly preferred that as many people as possible should live in small single-family or at most two-family houses. His writings were full of statements extolling the superiority of small houses on individually owned plots of land, and decrying the idea that large and tall apartment buildings either should or do have any economic advantage over houses. He complained about the problem of high land values driving up the cost of housing and forcing the construction of multi-family dwellings and high densities. Above all else, he passionately denounced the evils of overcrowding urban land with too many buildings too close to each other.

Adams strongly advocated lowering land values through the public regulation of maximum densities, and at the same time actively encouraging construction of inexpensive small houses on the periphery of cities where land was cheaper, and where open space and lower densities could still be maintained through better planning. To enable people to live at the urban edge, he suggested industrial decentralization to move jobs closer to the newly-built single-family houses which would be inhabited by workers relocating from their crowded inner city apartments to

become suburban home owners. He repeatedly pointed as successful models to Ebenezer Howard's efforts to move workers and their employers from the crowded industrial slums to the green fields beyond the big cities, to Raymond Unwin's work establishing 12 houses per acre as the maximum density for new residential development in England, and to Radburn for its innovative land planning, promotion of home ownership, and attempts to attract nearby employment. Adams did not actively argue for permanent green belts or a system of garden cities, though he did propose public ownership of suburban land to eliminate speculative pressure on values and thereby reduce housing costs. In short, he had worked out a formula for the garden metropolis, borrowing some of the ideas and ignoring others from his various mentors and colleagues in the garden city movement. For example, he outlined in the 1931 Regional Survey the following six objectives to address 'the most important needs in regard to housing policy':

1. Adequate control of the planning and development of new subdivisions.
2. Prevention of the erection of new dwellings and tenements that do not conform to reasonably good standards of health and safety.
3. Prevention of excessive density of buildings devoted to residence and protection of their surroundings against invasion of injurious buildings or uses.
4. Prevention of occupation of houses unfit for human habitation and of the renting of such houses.
5. Giving of more encouragement to building and loan associations, private individuals and others through state boards of housing so as to stimulate erection of new houses, increase of home owning, and establishment of new industrial towns and model suburbs.
6. Municipal purchase and development of land for housing purposes[14].

In *The Design of Residential Areas*, Adams explained in detail his principles and methods for producing more cost-efficient and attractive housing through better land planning and control. As with Letchworth three decades earlier, his hopes rested primarily on the educational value of model private developments. He had stated this conclusion forthrightly in the final volume of the New York Regional Plan:

Finally, on the subject of housing, we have to accept the fact that the difficulties that exist in restricting density of population by zoning regulations, or in inaugurating any system of public purchase of open land to enable model schemes of housing to be carried out, make it all the more important that such private enterprise as has been directed toward the building of model towns and neighborhood communities like Radburn, Forest Hills, and Sunnyside should receive every possible financial support and encouragement from public authorities.

It is by the creation of such object lessons, in which the combined advantages of predetermined planning, of reasonable restriction of density of population, of provision of adequate recreation areas, of associated community life and of good architecture are demonstrated, that the proper guidance can be obtained for improving conditions in all parts of the Region[15].

The Federal Housing Administration's key role in guiding the garden metropolis

What was missing when Adams wrote these words in 1931 was the policy and programme that would enable American public authorities financially to support private developers in improving

new housing and community development standards. Three years later, the creation of the Federal Housing Administration began to fill just such a need. By introducing the mutual mortgage insurance system, the FHA succeeded in significantly expanding the supply of capital available for residential development and in making mortgage loans much more affordable for moderate-income purchasers of owner-occupied housing[16].

To reduce the risk on the mortgages it insured, the FHA established property and neighbourhood standards for operative builders and subdivision developers that were intended to stabilize the long-term physical quality and market value of the insured housing and the community environment. FHA created a set of underwriting guidelines and financing procedures designed to encourage large-scale residential development by community builders who would be more likely to engage in the type of land planning that Thomas Adams had recommended in *The Design of Residential Areas*. As Herbert Hare, the noted landscape architect and planner of Kansas City's exclusive Country Club District, observed in 1939: 'The greatest value of the Federal Housing Administration regulations has been in raising the standards of design in districts for less expensive houses[17].'

In the 1930s FHA organized a Land Planning Division, directed by architect Miles Colean and landscape architect Seward Mott and staffed with numerous planning and design consultants. The Land Planning Division worked closely with private developers and lenders wishing to obtain mortgage insurance for their proposed projects, attempting to re-educate these developers and lenders about modern principles of good engineering and design. FHA's land planning consultants favoured development methods such as the superblock, the cul-de-sac, the separation of streets into wide arterials and narrow service roads, the saving of street and utility costs through better planning in order to provide for more parks, recreation areas and green space, and several other ideas adapted from the planners of British and American garden cities and suburbs[18].

The physical form of many of the residential subdivisions built for America's post World War II garden metropolis was carefully and graphically prescribed by FHA in four key pre-war publications: *Planning Neighborhoods for Small Houses* (1936), *Planning Profitable Neighborhoods* (1938), *Subdivision Standards* (1939) and *Successful Subdivisions* (1940)[19]. Frederick Adams, professor of planning at M.I.T., editor of *The Planners' Journal*, and Thomas Adams' son, reviewed *Planning Profitable Neighborhoods* in 1938 with the comment that:

The Federal Housing Administration is to be complimented for the manner in which they have presented the essentials of good neighborhood planning, under a title which is designed to appeal to the private real estate developer. The bulletin indicates by means of a series of illustrations showing typical good and bad plans for specific sites how proper planning not only improves the amenities of the neighborhood but also results in a more secure investment for the operator[20].

Further, FHA insisted on relatively strict and comprehensive public planning and land-use regulations, as well as private deed restrictions, before it would agree to insure mortgage loans in a community. This put a good deal of pressure on state, county and local jurisdictions to initiate or restructure planning activities so that FHA mortgage insurance would be available within their communities. Thomas Adams' concern in 1931 about 'the difficulties that exist in restricting density of population by zoning regulations' was at least partially transformed by the FHA. The powerful inducement of mortgage insurance to lenders, developers, builders, brokers and home

buyers, particularly during the 1930s and 40s, proved more effective in promoting land-use controls than most prior efforts by American local governments to enforce police power restrictions[21].

Conclusion

By the late 1940s and early 50s, two newly-built suburbs, Levittown on Long Island and Park Forest outside of Chicago, had become well-publicized symbols of the FHA approach to mass financing and development using modern methods of community planning and small house design and construction[22]. Yet in terms of a broad vision of environmental reform, FHA's contribution was definitely limited. A large number of the insured subdivisions did not even contain the modest land planning innovations of a Levittown. In many cases neither FHA, public planning agencies nor the private real estate industry adhered to very high standards of design or development. While even critic Charles Abrams conceded that 'A larger measure of control over building operations than heretofore existed is a by-product of the FHA scheme', this control, although a distinct improvement over previous speculative practices, was nevertheless far too modest to implement sweeping environmental changes[23]. The Veterans Administration, the other key post-war public mortgage insurance agency, often did not even adhere to FHA's minimal standards and controls. Both agencies were strongly criticized at times for helping to finance poor quality development[24].

In social terms the record is more negative. Both FHA and VA openly promoted racial and class segregation until the 1970s[25]. Indeed, the movement for new towns and new communities in the late 1960s and early 70s was motivated at least in part by a desire to undo the mistakes of post-war FHA-VA suburban development practices. The best of the new community advocates, such as James Rouse, the developer of Columbia, Maryland, operated within the spirit of the original garden city vision. Mostly, however, these new 'urban villages' like Irvine, California have essentially become middle to upper income suburban enclaves that represent a modest environmental improvement on traditional suburban sprawl but are just as segregated by class and race[26].

During the decades from the 1940s to the 1960s, the confluence of rising real incomes, a housing shortage, a vast amount of relatively inexpensive land for development on the metropolitan periphery, a massive public investment in a decentralized automobile-centred transportation system and many other factors combined to produce the garden metropolis. FHA and VA helped make possible the Levittown model of development of cheap single-family houses for moderate income workers, each family owning their own home, their own plot of land and their own garden, in a low-density environment with recreation areas, open space, schools, shops and other community facilities, accessible by car or other means of transit to jobs and shopping. The percentage of non-farm owner-occupied households in the United States jumped from 41 % in 1940 to 60 % by 1960. Similar dramatic gains were made in improving housing quality and in substantially reducing the percentage of substandard housing, which dropped from nearly 40 % of non-farm households in 1940 to less than 10 % by 1970. The largest share of the benefits of these changes have gone to the 'middle third' of the population in terms of income. For the lower

third, housing progress has been genuine but much slower, and we still have a long way to go before everyone in America is well housed[27].

America's sprawling garden metropolis certainly bore almost no resemblance to Ebenezer Howard's turn of the century scheme of 'social cities'. Yet to garden city advocates such as Thomas Adams, the planning and production of America's mass suburban home ownership fulfilled many essential environmental objectives, and even a few important social goals. In my view, this adaptation of the garden city ideal constitutes a genuine though limited success, and not a disappointing failure.

Notes

1. My argument is amplified in Marc A. Weiss, *The Rise of the Community Builders: The American Real Estate Industry and Urban Land Planning*. New York: Columbia University Press, 1987; idem., Richard T. Ely and the Contribution of Economic Research to National Housing Policy, 1920–1940, *Urban Studies* 26 (February 1989) 115–26; idem., Marketing and Financing Home Ownership: Mortgage Lending and Public Policy in the United States, 1918–1989, *Business and Economic History* 18 (1989) 109–18; and idem., *Own Your Own Home: Housing Policy and Home Ownership in America*. New York: Columbia University Press, forthcoming in 1991.
2. See 'The Garden City Idea and Modern Planning'. Lewis Mumford's introductory essay to the 1945 edition of Ebenezer Howard's *Garden Cities of To-morrow*. London: Faber and Faber, 1945; as well as Mumford's influential *The Culture of Cities*. New York: Harcourt, Brace, 1938; Clarence S. Stein, *Toward New Towns for America*. New York: Reinhold, 1957; and Carl Sussman (ed.), *Planning the Fourth Migration: The Neglected Vision of the Regional Planning Association of America*. Cambridge: MIT Press, 1976. On Ebenezer Howard's life and works, see Robert Fishman, *Urban Utopias in the Twentieth Century: Ebenezer Howard, Frank Lloyd Wright, and Le Corbusier*. New York: Basic Books, 1977; and Robert Beevers, *The Garden City Utopia: A Critical Biography of Ebenezer Howard*. London: Macmillan, 1988. On Mumford, see Donald L. Miller, *Lewis Mumford: A Life*. New York: Weidenfeld and Nicolson, 1989.

The secondary literature on the garden city tradition in the USA, in addition to Sussman's introduction (1976), includes Daniel Schaffer, *Garden Cities for America: The Radburn Experience*. Philadelphia: Temple University Press, 1982; Roy Lubove, *Community Planning in the 1920s The Contribution of the Regional Planning Association of America*. Pittsburgh: University of Pittsburgh Press, 1963; Joseph L. Arnold, *The New Deal in the Suburbs: A History of the Greenbelt Town Program, 1935–1954*. Columbus: Ohio State University Press, 1971; Paul K. Conkin, *Tomorrow a New World: The New Deal Community Program*. Ithaca: Cornell University Press, 1959; Carol Corden, *Planned Cities: New Towns in Britain and America*. Beverly Hills: Sage Publications, 1977; Carol A. Christensen, *The American Garden City and the New Towns Movement*. Ann Arbor: UMI Research Press, 1986; Arnold R. Alanen and Joseph A. Eden, *Main Street Ready-Made: The New Deal Community of Greendale, Wisconsin*. Madison: State Historical Society of Wisconsin, 1987; David B. Cady, *The Influence of the Garden City Ideal on American Housing and Planning Reform, 1900–1940*. Ph.D. dissertation, Department of History, University of Wisconsin, Madison, 1970. See also *Links in the Chain: Greenbelt, Maryland, and the New Town Movement in America*, the annotated bibliography compiled by Susan L. Klaus and published by the Center for Washington Area Studies at George Washington University (Washington, D.C., 1987).

The phrase 'crabgrass frontier' is from Kenneth T. Jackson, *Crabgrass Frontier: The Suburbanization of the United States*. New York: Oxford University Press, 1985.

3. The best sources on the greenbelt towns are Arnold (1971), Conkin (1959), Alanen and Eden (1987), Stein (1957), and Zane L. Miller, *Suburb: Neighborhood and Community in Forest Park, Ohio, 1935–1976*. Knoxville: University of Tennessee Press, 1981. On the First World War subdivisions, see Cady (1970); Miles L. Colean, *Housing for Defense*. New York: Twentieth Century Fund, 1940; Edith Elmer Wood, *Recent Trends in American Housing*. New York: Macmillan, 1931; and Roy Lubove, Homes and 'A Few Well Placed Fruit Trees': An Object Lesson in Federal Housing. *Social Research* 27 (Winter 1960) 469–86.
4. On the neighbourhood unit idea (including discussion of Forest Hills), see Clarence Arthur Perry, The Neighborhood Unit, in Regional Survey of New York and Its Environs, *Neighborhood and Community Planning*. New York: Regional Plan of New York and its Environs, 1929, pp. 20–140; and his *Housing for the Machine Age*. New York: Russell Sage Foundation, 1939. For the subsequent evolution, see James Dahir, *The Neighborhood Unit Plan: Its Spread and Acceptance*. New York: Russell Sage Foundation, 1947; American Public Health Association, *Planning the Neighborhood: Standards for Healthful Housing*. Chicago: Public Administration Service, 1948; and Christopher Silver, Neighborhood Planning in Historical Perspective. *Journal of the American Planning Association* 51 (Spring 1985) 161–74. On Forest Hills, see Robert A. M. Stern, *Pride of Place: Building the American Dream*. Boston: Houghton Mifflin, 1986; and John R. Stilgoe, *Borderland: Origins of the American Suburb, 1820–1939*. New Haven: Yale University Press, 1988.
5. On Sunnyside and Radburn, see Schaffer (1982), Stein (1957), and numerous other sources.
6. Fishman (1977), Beevers (1988), Peter Hall, *Cities of Tomorrow: An Intellectual History of City Planning in the Twentieth Century*. Oxford: Basil Blackwell, 1988; and Gordon E. Cherry, *Cities and Plans: The Shaping of Urban Britain in the Nineteenth and Twentieth Centuries*. London: Edward Arnold, 1988; are among the many who discuss the relationship of Howard's social scheme to Parker and Unwin's design contribution. On the latter, see Raymond Unwin's *Town Planning in Practice: An Introduction to the Art of Designing Cities and Suburbs*. London: T. F. Unwin, 1909; and his famous pamphlet, *Nothing Gained By Overcrowding! How the Garden City Type of Development May Benefit Both Owner and Occupier*. London: Garden Cities and Town Planning Association, 1912. Henry Wright explains some of his planning and design ideas in *Rehousing Urban America*. New York: Columbia University Press, 1935; see also his speech about Radburn to the National Association of Real Estate Boards: Henry Wright, How Long Blocks Cut Down Street Costs, and other Economies of Modern Planning, in *Annals of Real Estate Practice*. Chicago: National Association of Real Estate Boards, 1929, pp. 488–95.
7. Eugenie L. Birch, Radburn and the American Planning Movement: The Persistence of an Idea. *Journal of the American Planning Association* 46 (October 1980) 424–39.
8. Federal Housing Administration, *Planning Neighborhoods for Small Houses*. Washington, D.C.: U.S. Government Printing Office, 1936, p. 24.
9. Letter from Clarence Stein to Alfred K. Stern, 15 September, 1930 (Better Homes, Box 74, Herbert Hoover Presidential Library).
10. The best source on Adams' career is Michael Simpson, *Thomas Adams and the Modern Planning Movement: Britain, Canada, and the United States, 1900–1940*. London: Mansell, 1985.
11. Simpson (1985), p. 37.
12. On Adams' role in the 1931 President's Conference on Home Building and Home Ownership, see the important publication, John M. Gries and James Ford (eds.), *Planning for Residential Districts*. Washington, D.C.: National Capital Press, 1932; especially the reports of the Committee on City Planning and Zoning, and the Committee on Subdivision Layout.
13. Thomas Adams (assisted by Harold M. Lewis and Lawrence M. Orton), *The Building of the City*. New York: RPNYE, 1931, pp. 134–219; Thomas Adams, The Character, Bulk and Surroundings of Buildings; and Thomas Adams (in collaboration with Wayne D. Heydecker), Housing Conditions in

- the New York Region, in *Regional Survey of New York and Its Environs, Buildings: Their Uses and the Spaces About Them*. New York: RPNYE, 1931, pp. 21–349; Clarence Arthur Perry, *The Neighborhood Unit*; and Thomas Adams, Edward M. Bassett, and Robert Whitten, *Problems of Planning Unbuilt Areas*, in *Neighborhood and Community Planning* (1929), pp. 20–140 and 211–355; Robert Whitten and Thomas Adams, *Neighborhoods of Small Homes*. Cambridge: Harvard University Press, 1931; Thomas Adams, *The Design of Residential Areas*. Cambridge: Harvard University Press, 1934. A very powerful statement by Adams of his commitment to mass home ownership is contained in the monograph on *Housing Conditions in the New York Region*, particularly the section on *Home Ownership in the Region*, pp. 267–73.
14. Adams, *Housing Conditions in the New York Region*, pp. 302–3.
 15. Adams, *The Building of the City* (1931), p. 219.
 16. On the FHA, see Weiss (1987); Jackson (1985); Charles Abrams, *The Future of Housing*. New York: Harper, 1946; William L. C. Wheaton, *The Evolution of Federal Housing Programs*. Ph.D. dissertation, Department of Political Science, University of Chicago, 1953; Nathaniel S. Keith, *Politics and the Housing Crisis Since 1930*. New York: Universe Books, 1973; Mark I. Gelfand, *A Nation of Cities: The Federal Government and Urban America, 1933–1965*. New York: Oxford University Press, 1975; Miles L. Colean, *A Backward Glance: The Growth of Government Housing Policy in the United States, 1934–1975*. Washington, D.C.: Mortgage Bankers Association of America, 1975; Gertrude S. Fish (ed.), *The Story of Housing*. New York: Macmillan, 1979; Gwendolyn Wright, *Building the Dream: A Social History of Housing in America*. New York: Pantheon, 1981; R. Allen Hays, *The Federal Government and Urban Housing: Ideology and Change in Public Policy*. Albany: State University of New York Press, 1985; J. Paul Mitchell (ed.), *Federal Housing Policy and Programs: Past and Present*. New Brunswick: Rutgers University Center for Urban Policy Research, 1985; Irving Welfeld, *Where We Live: A Social History of American Housing*. New York: Simon and Schuster, 1988.
 17. S. Herbert Hare, Federal Housing Administration Standards for Land Subdivision. *The Planners' Journal* 5 (January–March 1939), p. 19.
 18. Weiss (1987); Birch (1980); Adams (1934).
 19. FHA, *Planning Neighborhoods for Small Houses*; idem., *Planning Profitable Neighborhoods*. Washington, D.C.: USGPO, 1938; idem., *Subdivision Standards*. Washington, D.C.: USGPO, 1939; idem., *Successful Subdivisions*. Washington, D.C.: USGPO, 1940.
 20. Frederick J. Adams, *Planning Profitable Neighborhoods*. *The Planners' Journal* 4 (November–December 1938), p. 153.
 21. Weiss (1987); Adams, *The Building of the City* (1931), p. 219.
 22. On Levittown, Park Forest, and postwar suburbanization, see Jackson (1985); Wright (1981); Stern (1986); Welfeld (1988); Herbert J. Gans, *The Levittowners: Ways of Life and Politics in a New Suburban Community*. New York: Knopf, 1967; William H. Whyte, Jr., *The Organization Man*. New York: Simon and Schuster, 1956; Barry Checkoway, *Large Builders, Federal Housing Programmes, and Postwar Suburbanization*. *International Journal of Urban and Regional Research* 4 (March 1980) 21–45; Ned Eichler, *The Merchant Builders*. Cambridge: MIT Press, 1982; Clifford Edward Clark, Jr., *The American Family Home, 1800–1960*. Chapel Hill: University of North Carolina Press, 1986; and Barbara M. Kelly, ed., *Suburbia Re-examined*. Westport: Greenwood Press, 1989.
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- Press, 1967; Gurney Breckenfeld, *Columbia and the New Cities*. New York: Ives Washburn, 1971; Raymond J. Burby III and Shirley F. Weiss, *New Communities U.S.A.* Lexington: Lexington Books, 1976; Frederick R. Steiner, *The Politics of New Town Planning: The Newfields, Ohio Story*. Athens: Ohio University Press, 1981; George T. Morgan, Jr., and John O. King, *The Woodlands: New Community Development, 1964-1983*. College Station: Texas A&M University Press, 1987. The use of the term 'urban villages' to describe mega-suburbs comes from Christopher B. Leinberger and Charles Lockwood, How Business is Reshaping America. *The Atlantic* 258 (October 1986) 43-52. Robert Fishman, calls them 'technoburbs' in his *Bourgeois Utopias: The Rise and Fall of Suburbia*. New York: Basic Books, 1987. Other books on recent suburban trends include Peter O. Muller, *Contemporary Suburban America*. Englewood Cliffs: Prentice-Hall, 1981; Mark Baldassare, *Trouble in Paradise: The Suburban Transformation of America*. New York: Columbia University Press, 1986; and Carl Abbott, *The New Urban America: Growth and Politics in Sunbelt Cities*. Chapel Hill: University of North Carolina Press, revised edition, 1987.
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