RE-DESIGNING THE AUSTRALIAN DREAM

BY PHILIP GRAUS

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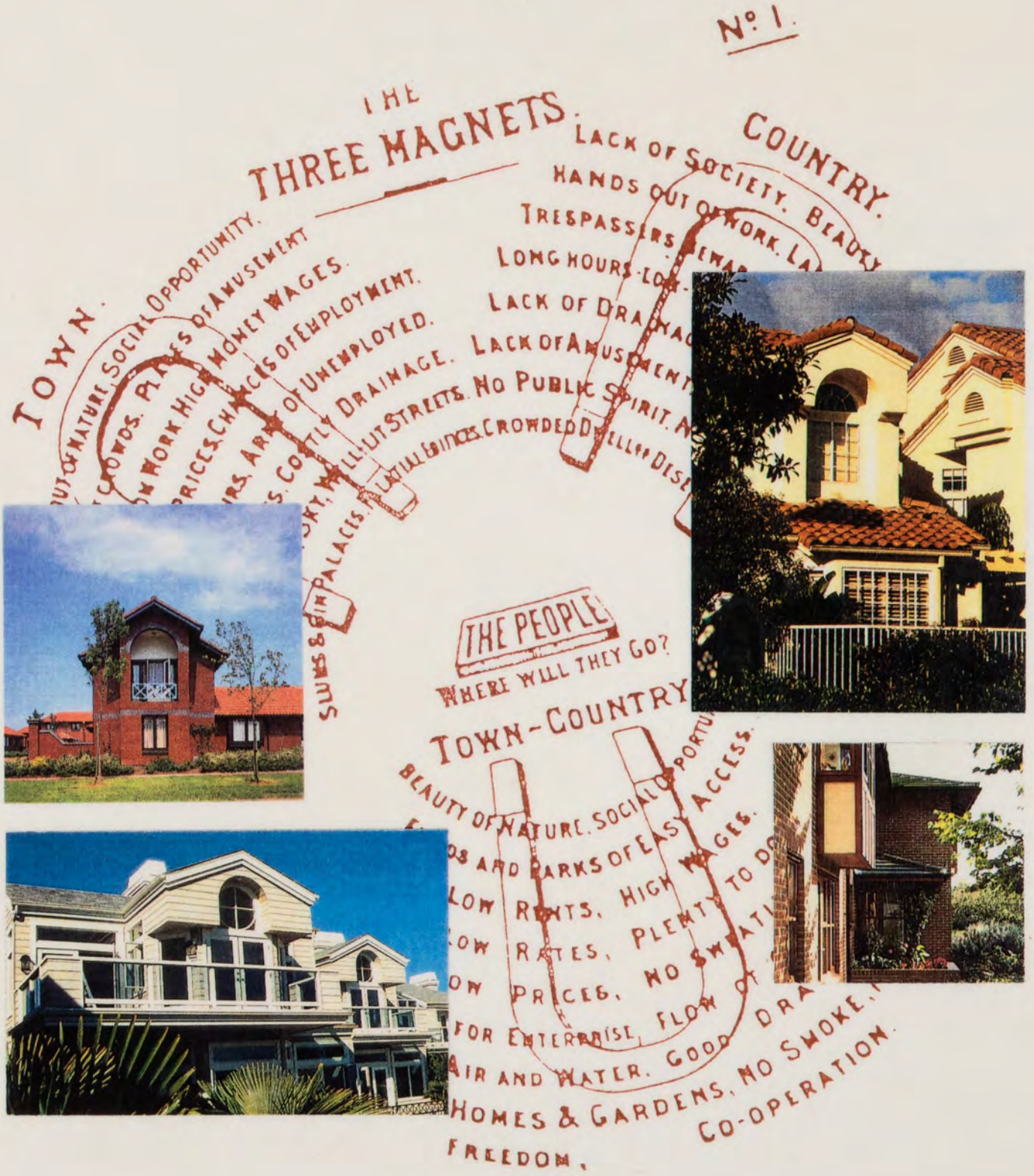

BYERA HADLEY TRAVELLING SCHOLARSHIP
NSW BOARD OF ARCHITECTS

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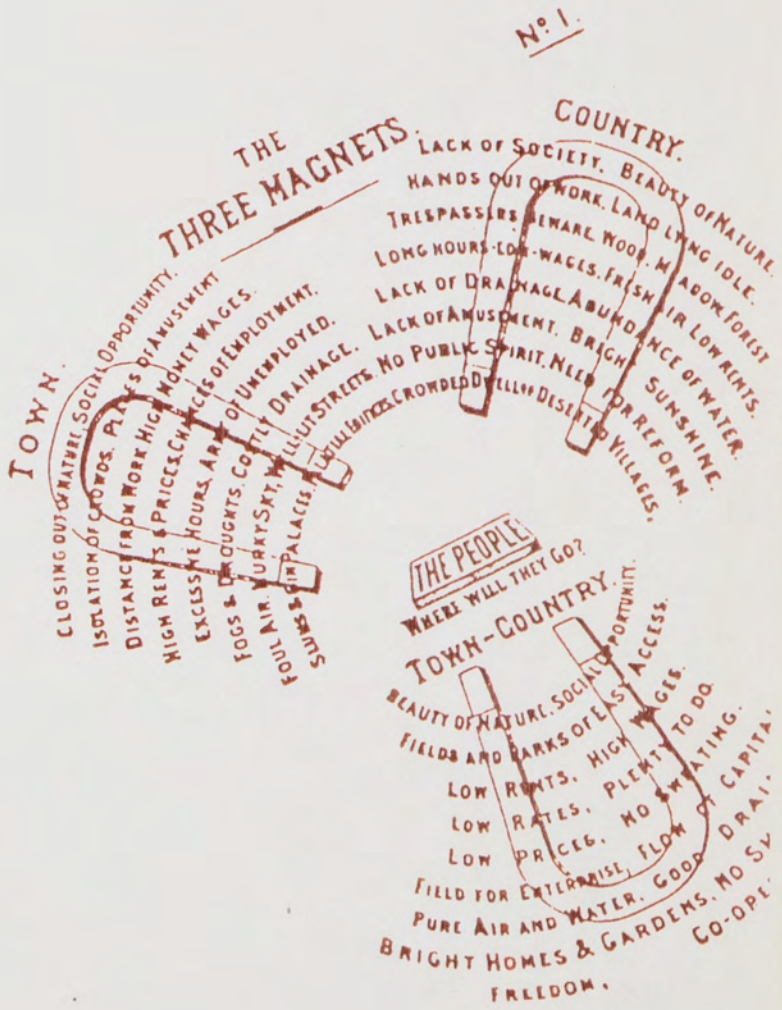
PART 1:
INTRODUCTION



1. REDESIGNING THE AUSTRALIAN DREAM

One of the most pressing problems for the average person in any sizable city in Australia is that of affordable housing. The increasing urban populations of cities such as Sydney and Melbourne, the changing demographic structure of the family unit, and changing lifestyles are having a profound impact on the form of suburban housing in Australia. Escalating land values are threatening the affordability of home ownership. As a result, 'The Great Australian Dream' of a detached house with a garden on a quarter acre block is no longer a reality for most.

The NSW Board of Architects Byera Hadley Travelling Scholarship has provided an opportunity for the author to study the situation overseas, seeing examples of work being done in response to a very similar situation. Specifically the author examined examples in the United States and United Kingdom, two countries with similar levels of home ownership. Seminal examples of early suburbs have been included as they appear to address many of the issues noted above as well as providing a context against which to examine contemporary examples.

An initial period of nine months research included visits to authorities involved in the area of housing in Sydney and Melbourne. A survey of literature in Australia and overseas was undertaken prior to establishing the itinerary and actual travel overseas.

A series of meetings with architects, planners, Government authorities, developers and critics were held in Sydney, Melbourne, the United States, United Kingdom and Canada, and these provided the background to the various projects presented.

Another primary aim of this study has been to analyse ordinances in relation to suburban developments visited. It has since become obvious how important an understanding of the relationship between housing, planning and political process is.

It is beyond the scope of this study to examine the situation in Australia. Rather it is the task of the reader to make comparisons and judgments. This report is intended to stimulate such debate.

This study begins with the question of whether we are to consolidate or spread our suburbs as Sydney continues to grow. This is a fundamental question as it will profoundly influence the form of the suburb we will live in and so too the 'Australian Dream'.

It is clear that current concerns about affordability as well as the economic and environmental cost of infrastructure are pushing Government bodies towards suburban consolidation, a direction that is unlikely to change in the foreseeable future. This attitude is also apparent in the United States and the United Kingdom.

While the Australian Dream has been primarily concerned with the individual house and the yard within its boundaries, a more dense suburb with smaller plots and less distance between houses raises issues not really considered previously. As well as privacy being threatened, so is the image of the detached house.

A primary purpose of this study has been to examine overseas examples of suburban projects that address the issue of higher densities. Since good examples of such housing have been built over a long period of time it has been necessary to examine examples dating from the mid nineteenth century onwards. This has also provided a convenient context to the contemporary examples included.

It is important to understand the changing role of Government in the legislation and provision of housing. It would appear that events have turned somewhat of a full circle from early minimal health standard legislation in the mid nineteenth century through to current large public/private partnerships where the private sector is relied upon once again the house the populace. This is occurring in Australia, the United States and the United Kingdom.

The growth of the metropolis created horrendous housing conditions in both London and New York in the nineteenth century. The dense urban fabric of these cities concentrated poverty as never before. Parts of New York were more dense than Calcutta. This concentration of poverty right next to wealthy inner city neighbourhoods precipitated eventual action. It is in this light that the widespread enthusiasm and support for the Garden Suburb and eventually Suburbia should be seen.

I would like to thank the people who have assisted me in the preparation of this report, in particular the NSW Board of Architects who have provided the funding for overseas travel as well as the production of this report. Many people gave their time for interviews in Sydney, Melbourne, the United States, the United Kingdom and Canada. Their insights have assisted me in gaining a clearer understanding of my topic.

June Foster typed the report. Any errors or inaccuracies are of course the responsibility of the author. The report format and graphics were designed by Hugonnet Bouda Graphic Design.

2. A FUNDAMENTAL CHOICE - CONSOLIDATE OR SPREAD

Fundamental to the question of what type of housing we will have in Australia is what type of city we want to live in. The 'Great Australian Dream' rests on the premise of a comfortable detached house and a garden on a quarter acre block conveniently removed from 'town' while being convenient to the work place and the city itself.

As Sydney continues to grow and spread the above scenario begins to fade. As the suburbs sprawl, commuting time increases, competition for sites convenient to work and the city pushes up prices and increasingly we waste our resources and use up energy. Changing family sizes and the rising number of singles make the four bedroom house inappropriate for an increasing number of groups.

Two solutions to this situation have been suggested.

The first is to further subdivide Sydney, increasing the residential densities as much as possible, creating a real metropolis. The second is to develop new cities or towns at the periphery of the city. These very broad questions should be addressed before looking at the more detailed questions involved in 'Redesigning the Australian Dream'.

The first solution has been popularized under the banner of 'Urban Consolidation' and is a current policy cornerstone of the New South Wales State Government's housing policy. The arguments for consolidating population and increasing density are well argued and will not be re-stated in detail here (refer to John Roseth's article in Architecture Australia March 1991, p 30).

The opposite viewpoint has also been intelligently put by advocates such as Hugh Stretton (Ideas for Australian Cities, 1970) who suggest that the premise that one is entitled to a house with a garden is not an unreasonable one. This view is rooted in the ideals of the Garden City. While so-called 'de-centralization' was fashionable in the 1970's, urban consolidation is certainly in vogue at the present time.

Even a rudimentary awareness of the current political debate in Sydney reveals a deep schism in public opinion about which way to go. It is perhaps clearer in countries such as the United Kingdom where valuable agricultural land is being consumed by suburban sprawl.

The case studies presented here reflect a variety of responses to the above issues.

Early examples of housing have been deliberately included so that authentic examples of a 'Garden City' or a '19th Century Planned Community' could be presented. Many contemporary developments are attempts to reinstate these typologies.

In Australia the various levels of Government are attempting to address the issue of providing appropriate housing. Bodies such as The Green Street Joint Venture, funded by the Federal Government through the Department of Health, Housing, and Community Services are pursuing the acceptance of Medium Density Housing as an alternative to the quarter acre block. To this end a draft Australian Model Code For Residential Development has been produced. The joint venture links all levels of government by providing a series of funding allocations to Local Government bodies.

The term ' Medium Density Housing ' in the Australian context has not been defined in exact terms to date. Bruce Judd has described it as " ... an intensity of residential development somewhere between that normally achieved by 'low density' detached suburban housing on the one hand and 'high density' multi-storey, high rise forms on the other. The structural housing types usually assumed to be in this category include most forms of attached, ground based housing whether on separate allotments or common title, i.e. semi-detached, row and terraced housing, and single and two storey group housing developments on common title..." (Medium Density Housing in Australia, Ed Judd and Dean, RAIA 1983). The very term 'Medium Density Housing' reveals the uncertainty with which the problem of affordable housing is being pursued. The term implies a middle of the road density that recognises that the quarter acre block is no longer a reality and that somehow a 'comfortable ' compromise will maintain the 'Australian Dream'.

It may be argued that the Model Code is proposing a version of Medium Density Housing that is literally a subdivision of the traditional quarter acre block. The resulting regulations have the potential to create a 'miniaturized' version of the Great Australian Dream complete with reduced front, side and rear boundary setbacks. Though some North American innovations such as the ' Zero Lot Line ' are being actively considered by the code , it is at the level of local government that most resistance to change is coming. In extreme cases such as Balmain, the State Government has overridden local planning authorities in an attempt to allow Medium Density Developments.

It is clear that a fresh approach to affordable housing is required. A transition to more dense forms of habitation (if that is what the answer really is) will have to be more carefully thought out if it is to be politically acceptable. More importantly, the future of Sydney will depend on how its population is distributed. The dense urban examples of Paddington and Surry Hills may not hold the answer as they are special cases of relatively high densities occurring in the inner city. In reality they are exclusive areas affordable only to a minority of working couples in many cases without children. They don't provide the basic 'house and a garden' that is probably fundamental to the Australian home. It is therefore in the suburbs that the answer must be found.

What are suitable models that may be studied ? Are the much publicised housing schemes for model residential areas such as those proposed for Berlin by architects such as O.M. Ungas appropriate? Or is the Neo-Georgian Seaside development by Plater-Zyberk and Duany more appropriate ?

3. A SHIFT IN RESPONSIBILITY

(i) The role of Government in housing

Great Britain

Prior to the 20th century, governments in the English speaking countries had little or no involvement in housing. In Britain, by the second half of the 19th century, government bodies began to draft regulations in regard to health and sanitation as the metropolitan cities grew in size and outbreaks of diseases such as cholera occurred (London, 1854).

By the end of the 19th century, a number of reform movements had emerged. Several were specifically interested in improving housing conditions for the working class. None of these bodies were governmental.

By the turn of the century, the British Government had begun to draft town planning legislation that proposed specific residential densities and open space. Housing and land use had been linked.

By 1915 the Government had introduced a new form of intervention in housing - rent control. Although it was brought in as a wartime emergency measure, it was politically impossible to repeal after the War. In 1917, Lloyd George's Reconstruction Committee proposed extensive house building programmes for the working classes. Raymond Unwin, the designer of Letchworth, was an influential member of the Government committees formulating public housing policy. Many of the Garden City principles were followed in public housing in the first quarter of this century in Britain.

Both Labour and Conservative Governments saw it as the role of local authorities to build subsidised housing. By the 1930s Council housing estates had begun to make a significant impact on the pattern of urban growth. Wide avenues, open space and geometrical layouts were standard.

While new housing built at the fringes of the larger cities emptied the slums, little action was taken by the Government to improve the slums that remained. On the eve of the Second World War, one-third of the dwellings of Manchester were classified as unfit for occupation.

During the Second World War, Council authorities began to build flats in large quantities. The bombing of Britain during the War destroyed 1/2 million houses. By the end of the War, a general attitude towards profound reconstruction through centralised planning had occurred.

The new post-War Labour Government implemented the New Towns legislation as well as a Greater London Plan. This Plan recommended decentralising one million people outside London. The councils began to build estates of up to 2000 dwellings each combining flats, maisonettes and terrace housing. By the end of the 1940s, debate between the advantages of flats and houses began to occur.

During the 1950s, the notion of the Welfare State emerged. Even the Conservative Party continued centralised control. The Labour Party remained in power during the 1960s and returned in the mid 1970s.

In 1979, Margaret Thatcher won Government and changed Government policy dramatically. Public housing by local authorities was discouraged and is presently being sold to tenants. Government, in many ways, has reverted to its role in the 19th century, that of regulatory body.

United States

Traditionally, housing in the United States has been built by the private sector. Like the United Kingdom, private individuals built the first planned model communities in the mid 19th century. Unlike the United Kingdom, the United States did not suffer massive bombing devastation after the Second World War and consequently there was no major government renewal programme.

When Welwyn Garden City ran into financial problems, the British Government initially loaned funds and eventually took it over as a New Town. When the same thing happened in Radburn, New Jersey in the 1930s, no government funds were forthcoming.

The New Deal proposed by Roosevelt in the 1930s was the beginning of the US Government's direct role in house building. Like the United Kingdom, the United States started to build "green belt" towns as part of the National Industrial Recovery Act of 1935, which established the National Housing Authority.

In a similar fashion to the Thatcher Government, the Reagan Administration reduced its subsidised housing programmes from $32.3 million in 1978 to $9.7 million in 1988.

As a result of the declining role of Government in housing, a series of partnerships between local authorities and private developers have sprung up in both the United Kingdom and the United States.

(ii) Housing Associations in the U.K.

The Central Government is looking to Housing Associations to take over the role of providing public housing in Britain. For those who cannot afford to pay a mortgage on affordable housing, the Housing Associations will allow such tenants to convert their

rents into mortgage payments over time. This is in accord with the current Government policy of encouraging home ownership at all levels. The Government aims to reduce or if possible eliminate its stock of public housing that it must continue to maintain. Under new arrangements local authorities cannot build or rent out new housing.

The Central Government allocates funds to the Housing Corporation which is the body responsible for distributing funds to the Housing Associations. The projects are nominated individually and must qualify as 'affordable'. Since the Government began funding the Housing Associations, many new ones have formed. Some are non-charitable organizations. While most Associations are considered to be reputable, the Government's policy of encouraging Housing Associations at the expense of all else is felt by some as encouraging Housing Associations that are formed only to make a profit.

At present the Central Government is selling its stock of public housing to its tenants that wish to become home owners. A complex financial model has been developed to value the stock. These values are under scrutiny at present because of recent purchases of property well under market value. Many feel that the Government is selling off a valuable asset far too cheaply. The Government is also selling units to Housing Associations that qualify.

A Housing Association is able to buy land as well as housing stock. The Association then rents the housing out to those who qualify, as well as maintaining the property in much the same way as a Government body would. A Housing Association tenant or homeowner is obliged to keep or rent their house for a minimum period of five years. If an owner sells within that time any profit made will go back to the Housing Association.

Funds for housing may also be raised by selling off part of a development to private developers. This in effect subsidizes the public housing component of the project.

Commonly the Housing Association will prepare a master plan of the whole site to be developed prior to the sale of the component allocated for private development. The masterplan will form the design brief. The prospective developer(s) then negotiate with the Housing Association on the final controls for the site by submitting a 'design tender' which is usually evaluated by an outside consultant.

A Housing Association may specialize in a particular form of housing depending on the interests of those on the board of the particular Housing Association. Some Associations may only provide housing for the elderly or the disabled. Such tenants usually receive some form of Government subsidy.

In Great Britain Housing Associations are formed by groups of prominent citizens and civil servants, as well as others interested in housing. The first Associations were formed at the end the nineteenth century. The number of Housing Associations is increasing at present. In general a Housing Association is a non profit organization. Many in Great Britain believe that such Associations may offer the most promising way of providing affordable housing in the future.

To form a Housing Association , a number of businessmen or civil servants may join together to form a non profit body. The Association then formulates a Business Plan (in most cases assisted by professional consultants). This allows the Association to seek a loan from a bank or building society in the same way that a developer would. Housing Associations are not given loans on preferential rates. They must pay the full commercial rate. After the loan is approved the Association assembles a complete financial package which may include government funds if the housing is to be provided in an area designated as in need of public housing by the Government.

Each Local Government authority in Great Britain is obliged to set aside a minimum amount of land for affordable housing in its Structural Plan. Consequently affordable housing schemes are encouraged by the local council if they fulfil the needs of a Structural Plan. Often a Housing Association will be given land by a local council on which to build housing. This ensures that the housing is built in an area identified by the council's Structural Plan. The housing itself won't cost the council anything. Councils are encouraged to 'gift' land to Housing Associations by the fact that a Poll Tax has to be paid on any financial land transaction. Developers will also commonly include a component of affordable housing in a private development to ensure a sympathetic council reaction to the scheme. These are known as cross subsidy schemes. Developers work directly with Housing Associations in many cases. The developer may develop an entire site and allow an Association to take equity in part of the site. Another way is for the two parties to form a joint partnership. Alternatively a Housing Association may own or be given a site and invite tenders from interested developers who will submit design construct tenders on a limited competition basis.

(iii) Affordable Housing in Washington

The city administration used to provide money for public housing by directly contributing funds. All grants are now 'leveraged', with all financial assistance being required to earn some form of return that can be re-invested in other city projects.

Individual residential neighbourhoods in Washington are represented by Advisory Neighbourhood Commissions that are administered by the Local Authorities. These Commissions are required by law. Local lobbyists are used to publicise local issues

and raise awareness of any current problems. Professional lobbyists work on two levels. One group will work on a 'grass roots' level liaising directly with the residents group concerned, holding public meetings as well as getting to know the people involved. Another group, working with the 'grass roots' lobbyists, will make representations to legislators, politicians, as well as members of the business community. This group will be well connected politically as well as having access to the press. It would appear that there exist in Washington a large number of lobby organizations that work on specific civil rights issues.

It has been argued that it is essential to build accommodation for all income groups, and that local authorities should not only encourage low cost housing. By not building enough expensive rental housing, wealthy people moving into the city will pay high rents for any apartments available, thereby forcing out the lower income renters. The commercial boom in Washington over the past few years has resulted in an influx of well paid workers who have had to compete on the rental market, causing a shortage of low cost housing by displacing those paying less rent. Some housing lobbyists maintain that there should be a 'linkage' between commercial property development and housing. Development should create housing.

Efforts to impose a development levy for housing to be paid into City Council funds have proved ineffective. The funds are usually inadequate to finance the housing that they were intended for. One of the reasons is that Government bodies cannot provide housing economically. It would be more effective to create a public/private partnership or require developers to provide finished housing units as 'leverage' for development. This will avoid the levies being swallowed up by Government bureaucracy.

A major disadvantage of linkage is that housing paid for by development only occurs during boom times. It is in times of recession that affordable housing is needed the most.

The Washington Director of Zoning believes that developers cannot be regulated to do things that are not in their interest. Planners can only say 'no' to developers, not tell them where to develop housing etc... Therefore legislators need to formulate strategic plans identifying areas that need housing. These areas then need to be zoned accordingly.

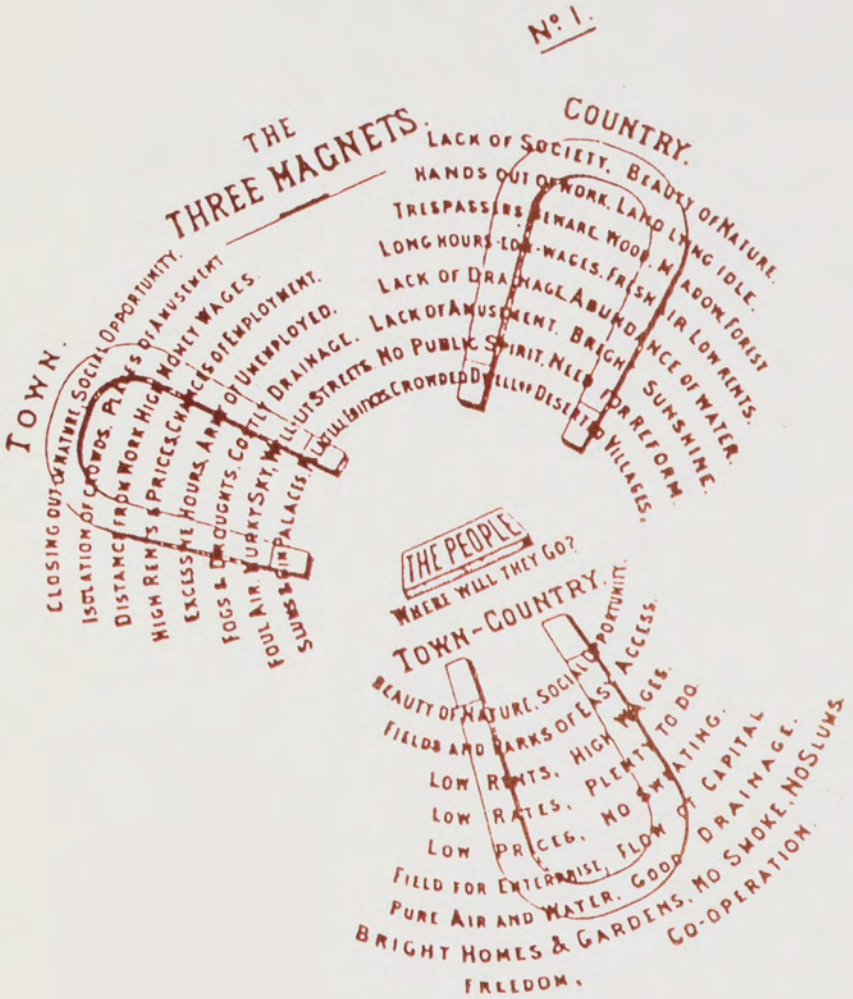
Some argue that rent controls are needed to maintain the diversity of the city. Otherwise as costs go up retired people will be continually displaced, as will be many other groups who cannot afford increasing costs. The people left will be middle class working couples. Others argue that rent control keeps a lid on the value of capital but doesn't attract new capital, and consequentially won't increase the stock of affordable housing.

(The above paragraphs are based on notes taken at a joint AIA/City administration Roundtable attended by the author in April 1991 in Washington D.C.)

PART 2:

BACKGROUND

The Suburb 1867 - 1967



1. THE RISE OF THE SUBURB - REJECTION OF THE CITY

It has been argued by some that suburbia arose sometime between 1815 and 1939 (The Rise of Suburbia, F.M.L. Thompson, Leicester University Press 1982). It is certainly true that the Mid Victorian period in England saw the rise of the mass suburb which has become the dominant form of residential development in the English speaking countries in the twentieth century. While there had been suburbs long before the nineteenth century, in the sense of places beyond the city limits, there arose in the United Kingdom during the nineteenth century a widespread belief that migration away from the city was a desirable form of habitation, leading to the possibility of a better life. The suburb came to represent an emblem of material and social success. Prior to this, settlements at the outskirts of cities consisted of squalid settlements much as those existing at the outskirts of today's poorer cities.

(I) The United Kingdom

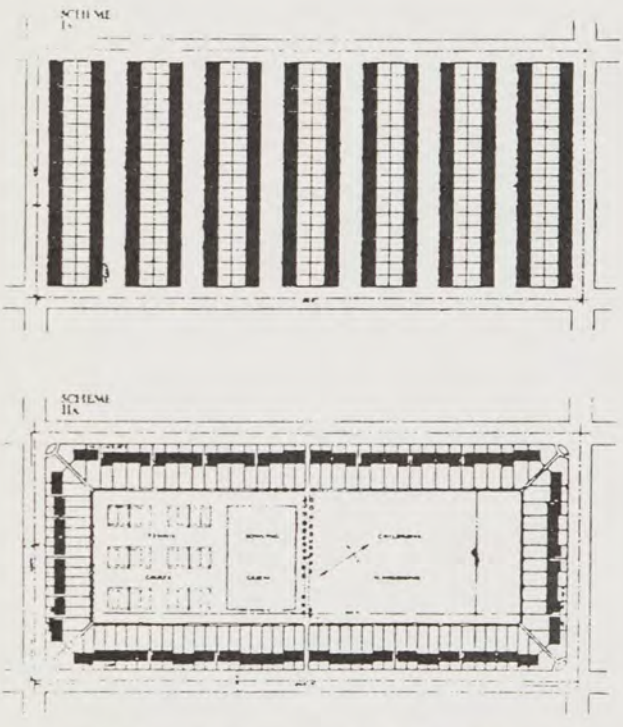
The Growth of the Suburb in London

Suburbs have been documented by Dyos as having existed outside of London since the tenth century. He noted that there were two types; the first containing villa dwellings of the wealthy town dwellers seeking a rural retreat from the bustle of the city, and the second containing tradesmen who wished to work free of the restrictive Guild associations who controlled operations in the city itself. By the sixteenth and seventeenth centuries high city rents and taxes forced the poorer inhabitants to leave the city as well. Suburbs of this type developed into crowded and unhealthy places. The villa suburbs were further out of the city than the more crowded and poorer ones.

By the eighteenth and nineteenth centuries the villa suburbs began to increase substantially as the city became regarded as a less desirable place to live. The Romantic Movement further reinforced the Arcadian vision of the countryside. As roads and communications improved people could live further from the centre of the city. This led to an increase in the size of the suburbs surrounding London. The build up continued up to the Second World War when construction was brought to a rapid halt. After the war the growth of suburbia continued at a far more rapid pace with the attaching of building estates to provincial towns.

David Thorns (Suburbia, Mac Gibbon and Kee 1972) has argued that five factors were crucial in determining the shape and rate of growth of the modern mass suburb. These are first, the increased mobility of the population due to improved roads and systems of transport; second, the congestion of the cities; third, the availability of land and finance provided by the advent of building societies; fourth, the development of Town and Country Planning which in the twentieth century has largely determined which areas are designated for expansion; and lastly the social respectability that the suburb has attained in the perception of the middle classes.

(II) The United States



"Nothing gained by overcrowding !" Unwin's enormously influential 1912 pamphlet dealt the death blow to the bye-law street and ushered in the age of the council estate and the cottage home.

The mass suburb did not occur in the United States until the twentieth century. During the nineteenth century the urban centres such as New York and Boston were created. By the end of that century the suburbs in both of these cities were growing faster than the urban areas.

At first only the wealthier classes moved out to the suburbs. This was due to the high costs associated with train travel on a regular basis. With the advent of the tram (trolley car) in 1852 the cost of commuting was reduced significantly. The first to move to the suburbs was the wealthiest upper-class group that could afford to live the farthest from the city (about ten to fifteen miles) and at the lowest densities. The second group were the central middle class with which the mass suburb is usually associated (living five to ten miles from the city). The third group was the lower middle class that took up vacant land existing in the inner city out to the fringes.

The suburbs continued to grow until the depression of 1930. Like Britain, building activity again continued after the Second World War. The post war period saw a decline in pubiic transport as well as the proliferation of the motor car . Like Britain, increasing urban congestion was encouraging an idealistic perception of the suburb.

The mid nineteenth century also saw the first planned residential suburbs such as Llewellyn Park developed in 1853 outside New York. In 1868 Olmsted and Vaux designed Riverside, some nine miles out of Chicago.

The returning soldiers from the Second World War were given loans requiring no deposit and long repayment periods. For the first time it had become cheaper to buy a house than rent one. During the period 1950-54 , 44 percent of all houses started in the United States were funded by the Federal Housing Administration and Veteran's Association support (Suburbia, FML Thompson).

From the very beginnings of suburbanization, social and architectural critics were both fascinated and appalled by the rapid growth of unplanned Suburbia. An article appearing in the Architect in 1876 described the suburb as ' a place which is neither one thing or the other, it has neither the advantage of the town nor the open freedom of the country, but manages to combine in nice equality of proportion the disadvantages of both '. Over time this image of the suburb led both architects and planners to the conclusion that the problem was the result of lack of system and control. This conclusion was to lead eventually to both the British and American New Towns.

2. THE GARDEN SUBURB / CITY - A BUILT UTOPIA

(i) Prelude

As previously mentioned, by the nineteenth century in Britain there was a movement away from the city. While the rich had always had a residence in the country, the poor had been confined to the city edges.

With the advent of the post industrial city came the emergence of the middle class, who could not afford country houses, but would not tolerate unhygienic circumstances on the urban fringe.

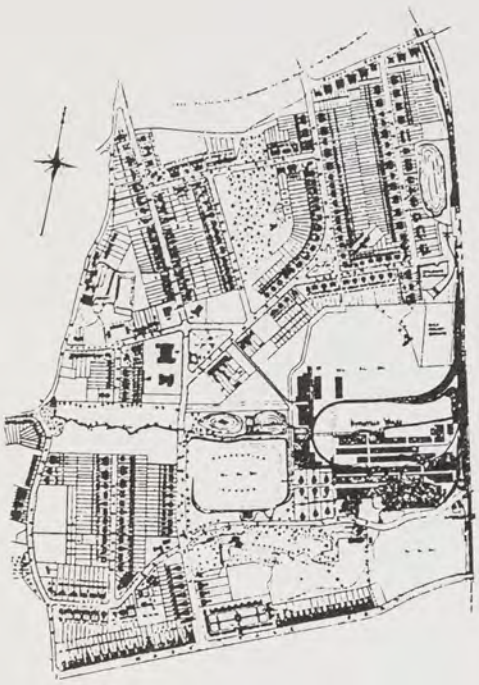
In the first half of the 19th century, 66,000 people died of cholera alone in Europe. This was widely attributed to poor sanitation in the cities. All this occurred at a time of decreasing mortality rates that had been declining since the last bubonic plague in the 17th century in Britain. (Gordon Cherry , Cities and Plans, London 1988.)

The population of London was growing to such an extent that by 1811 it was twelve times as large as its next rival city. It had become a vast metropolitan system. As the size of the city increased the existing legislative bodies were unable to create sanitary systems to cope. The following account gives a graphic picture of housing in the mid 19th century: ".... The streets are generally unpaved, rough, dirty, filled with vegetable and animal refuse, without sewers or gutters, but supplied with foul, stagnant pools instead. Moreover, ventilation is impeded by the bad, confused method of building of the whole quarter, and since many human beings here live crowded into small space, the atmosphere that prevails in these working-men's quarters may readily be imagined". (Engels, 1845, 1969 ed, p.106.)

In 1813 Robert Owen published A New View of Society where he outlined the view that the physical environment was a key force in determining character. This view was to underpin many of the English reformers. At New Lanark, Owen became the manager of a mill employing 2,500 people. He undertook housing improvement, health and educational facilities and set up the village store as a co-operative. It was in the 19th century then that the notion of a physical Utopia (first proposed by More) was combined with a social Utopia as a means of reform.

By the end of the 19th century it was becoming clear that the answers to the growing housing crisis were not to be found in the inner city but on new suburban lands.

In London the Boundary Street project was the end of an era rather than beginning. While the proposed layout demonstrated how model housing could be created, the 12 and 1/4 acres of central slum land cost the LCC some 500,000 pounds. 39 acres of land in South London could be purchased for 44,000 pounds.



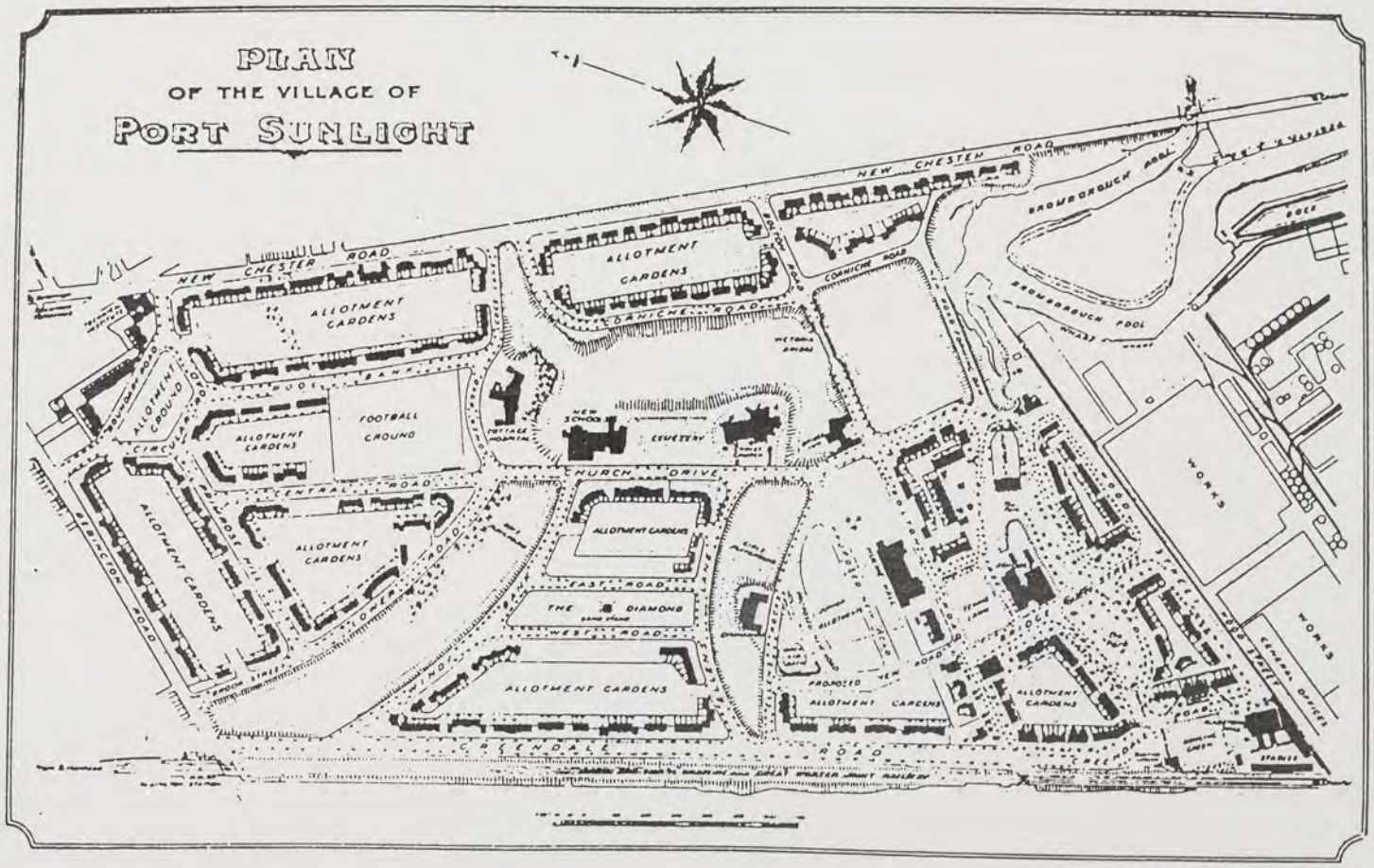
Bournville by George Cadbury.

(ii) The Garden City - a social utopia

It was clear by the 1880s that the answer to the housing problem was not to be found in the city. In 1884 Alfred Marshall (Professor of Economics at Cambridge) advocated de-centralisation as a way of removing the congestion of the city and assisting the economy.

By the last quarter of the 19th century the flight to the suburbs by the middle class was well established. It was at this time that the planned industrial villages of Port Sunlight (1887) and Bournville (1880) were established, incorporating the reformers' ideal of space, open air and sunlight. The complete Garden City would be 30,000, consisting of sub-areas of 6,000 people each.

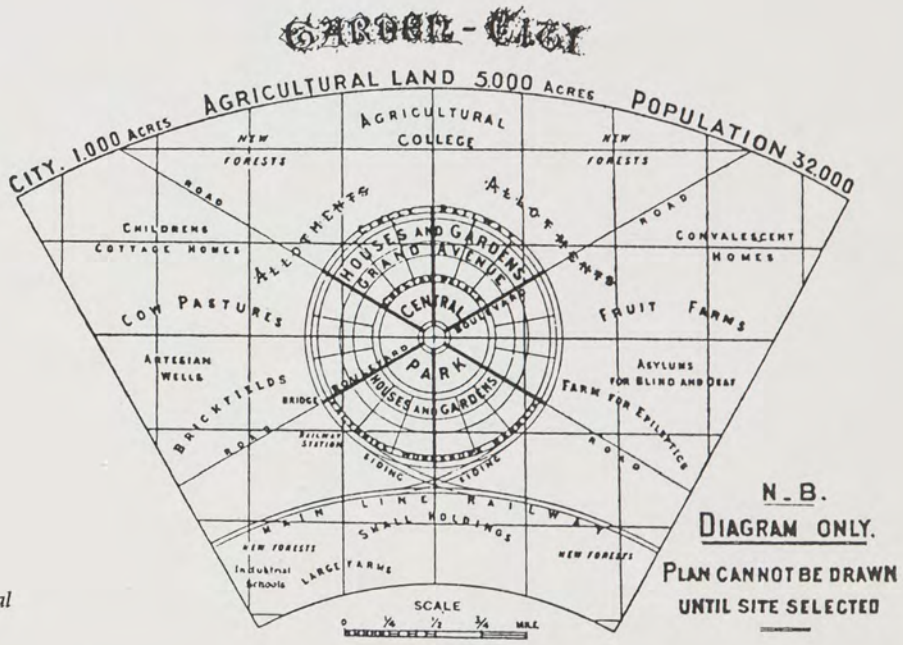
Howard's model was metropolitan as it addressed both the prevailing urban and rural issues of the day: "... There are in reality not only, as is so constantly assumed, two alternatives - town life and country life - but a third alternative, in which all the advantages of the most energetic and active town life, with all the beauty and delight of the country, may be secured in perfect combination." (Howard, 1902, 1965 ed, pp.45-46.)



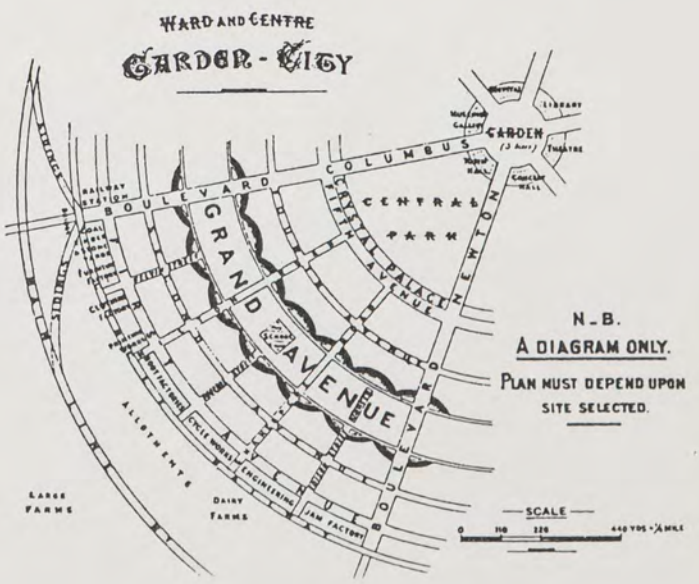
Port Sunlight by William Lever

(iii) Letchworth Garden City 1903 - the first garden city

In 1903 the Garden City Association (GCA) purchased 4,000 acres in Hertfordshire and the first Garden City of Letchworth was established. Howard was assisted greatly by Thomas Adams who boosted membership of the GCA to 2,000 within two years. In 1903 he was given responsibility for the development of Letchworth. By 1906 he had managed to persuade eight firms to relocate to Letchworth - he was, in effect, the first full-time Town Planner (Cities and Plans, Gordon Cherry, 1988).



Diagrammatic plan of a Garden City and its agricultural belt by Ebenezer Howard.

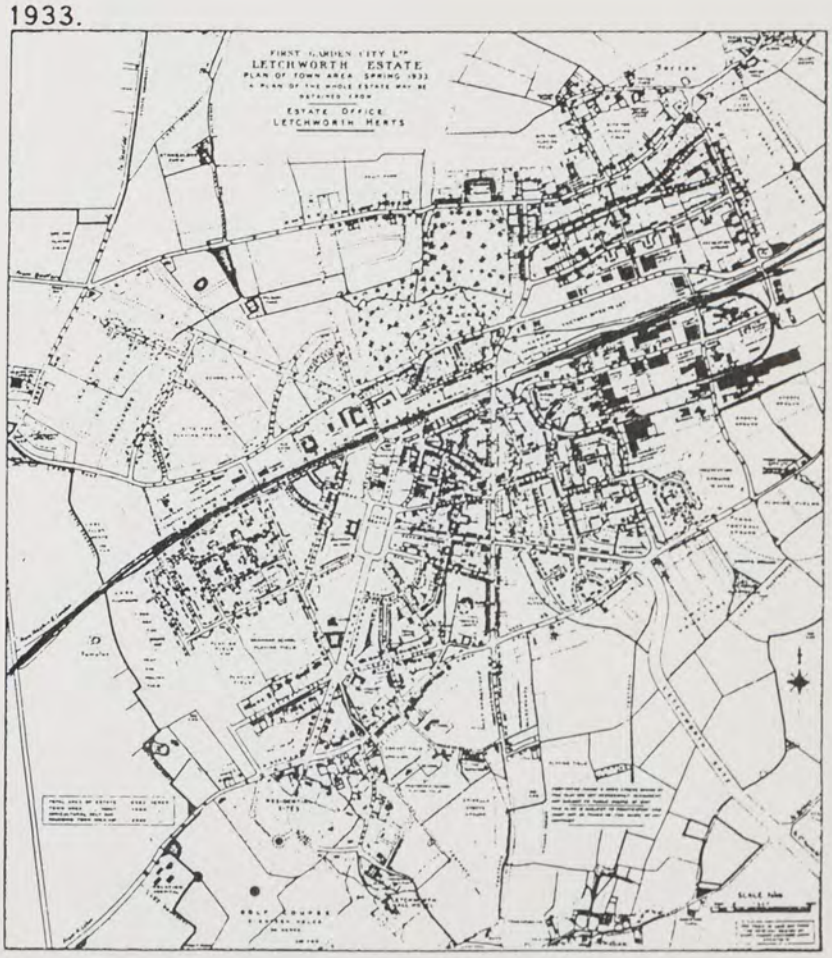


Detail of a diagrammatic Garden City plan also by Ebenezer Howard.

Crucial also to the development of Letchworth were Raymond Unwin and Barry Parker. Together they established its urban design principles. The plan was carefully related to both topography and landscape. Existing trees were retained. The existing plateau was retained as the core of Letchworth, with a loose geometry of major and minor axes being laid out. From here a series of quadrangles, greens and detached houses were established. The densities were deliberately low to achieve private gardens and a rural atmosphere.

Letchworth was divided into four quadrants by the railway which ran east-west, and the main street which ran south-north. The town square on the existing plateau was in the south-west quadrant. A broad boulevard, Broadway, connected the town square to the railway station. The south-east quadrant contained many of the industrial sites and modest attached dwellings. The shopping district lay between the station and main street south of the railroad.

1933.



Development map of Letchworth Garden City.

Unwin and Parker had given visual expression to Ebenezer Howard's theoretical ideas by evoking the traditional English village in a totally unthreatening way.

The low density and integration with existing topography give Letchworth its own character. By 1914 a British Town Planning Institute had been formed. The town planning movement had addressed the fundamental Victorian urban crisis by shifting from the reconstruction of old sites to new building at the urban periphery. This low density tradition articulated so many of the reformers' ambitions that the movement soon spread to France and Germany where it appealed greatly to the middle and upper classes.

Because of the rapid spread of decentralist principles it would appear that town planning proceeded to reinforce underlying economic trends and social objectives very powerfully.

Furthermore, the new worker's cottage architecture first evidenced at Port Sunlight and Bournville contrasted strongly against the drab and utilitarian blocks of model dwellings built in London from the 1860s onwards.

The cost of land and urban infrastructure made the low density cottage the most affordable solution. As previously noted, it also answered the reformers' objections to existing housing.

The centre of Letchworth comprises retail and civil functions. Provision for cars was not a major consideration.

Letchworth used commons, squares and cul-de-sacs in a similar manner to Hampstead Garden Suburb.

Common parking areas are provided in addition to parking in the commons and cul-de-sacs.

(iv) Hampstead Garden Suburb. 1905.

Unwin and Parker's next commission after Letchworth was the site plan for Hampstead Garden Suburb in 1905.

While their work at Letchworth was important in giving physical form to Howard's ideas, the site plan for Hampstead Garden Suburb was to have a far wider influence (Jonathon Barnett, The Illusive City, 1986).

The expansion of Hampstead Heath occurred in anticipation of an underground rapid transit line completed in 1907. The social programme was to create a community with a wide range of incomes with the advantages of 'town and country' as advocated by Howard. Unlike Letchworth, Hampstead was to be an extension of London and was thus contrary to Howard's intentions in many ways. It is ironic that Letchworth would also become a commuter suburb as transport improved.

Hampstead Garden Suburb is very much a product of the picturesque aesthetics of English garden design. Unwin and Parker had also been very much influenced by the ideas of Camillo Sitte put forward in Der Stadtebau. Sitte's approach was not to look at the logic of plans but what the viewer would actually see at ground level walking through a town. The succession of changing viewpoints became an important design tool.

Another important influence on the form of Hampstead Garden Suburb was the work of Sir Edwin Lutyens, who was the architect of several of the key buildings. The site plan of Hampstead is more compressed than Letchworth and the architectural groupings stronger. A key difference is the development of the cul-de-sac.

The cul-de-sac was a new feature that required special legislation, provided by the Hampstead Garden Suburb Act, 1906. This became a very successful prototype for future low density developments. The cul-de-sac created a hierarchy of streets, distinguishing between streets serving houses only and streets with passing through traffic. It encouraged groupings of houses around courtyards. Each house would have a street and a garden view. This notion was to be taken to an extreme by Henry Wright and Clarence Stein at Radburn, New Jersey.

While Howard's writings promoted the notion of the garden city, it was Hampstead Garden Suburb with its architecturally defined spaces and distinguished architecture that provided the image of the garden city internationally.

Although not for the working classes, Hampstead Garden Suburb was a prototype for future low density suburbs.

Hampstead Garden Suburb introduced the cul-de-sac, and the residential court.

(v) Welwyn Garden City. 1920.

The end of the First World War saw the advent of the term "regional planning". While Letchworth was designed as a garden city on the new town planning principles, the second garden city, Welwyn (established in 1920), was conceived as part of a linkage between a town and its region. As early as 1913 road traffic was being addressed by the planning of arterial roads. Furthermore, the contribution of Patrick Geddes, who advocated civil and regional surveys as part of the building of a regional programme, was beginning to have an impact.

Welwyn was established by Howard in a similar fashion to Letchworth. Welwyn would not have succeeded, however, without governmental loan money which was made available as part of the post-war housing programme.

The concept plan for Welwyn was prepared by Louis de Soissons and is similar to Letchworth in many ways. The monumental boulevard is more dominant than at Letchworth and the plan more compressed. The arrangement of industrial areas was very similar to Letchworth.

The architecture of the houses is Georgian and not as picturesquely arranged as Letchworth. It is also not as distinguished.

After Welwyn the local authorities in the UK began to establish cottage housing estates along Garden Suburb principles but on a New Town scale. As public housing these developments were much more of a one-class community of subsidised housing than Howard had advocated. Many also lacked an employment base. While care was taken in the employment of curving streets and cul-de-sacs to provide architectural groupings, the uniformity of income level, density, and building type invariably produced a certain monotony that we today identify with Surburbia.

The boulevard is much more monumental than the main axis at Letchworth.

The houses, arranged around greens, are Georgian in character. The groupings are not as picturesque as Letchworth.

(vi) Riverside, Illinois. 1869.

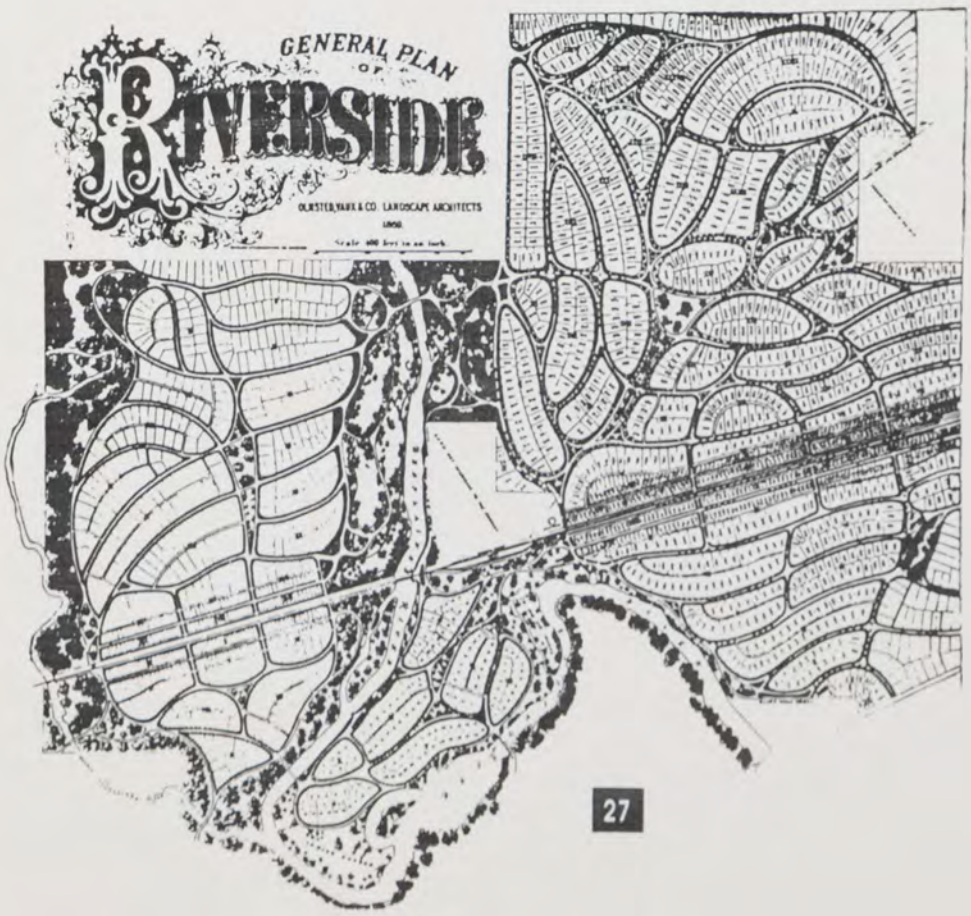
Prior to the Great Fire in 1871, Chicago was known as the 'garden city' because of its tree-lined streets and landscaped private yards. Laid out in 1869 by Frederick Law Olmsted, Riverside was probably familiar to Ebenezer Howard who lived in Chicago for a period (Walter Creese, The Search for Environment).

Olmsted laid out Riverside with his partner, the architect Calvert Vaux, as a 'suburban village' on a 1,600 acre site on the Des Plaines River nine miles west of Chicago.

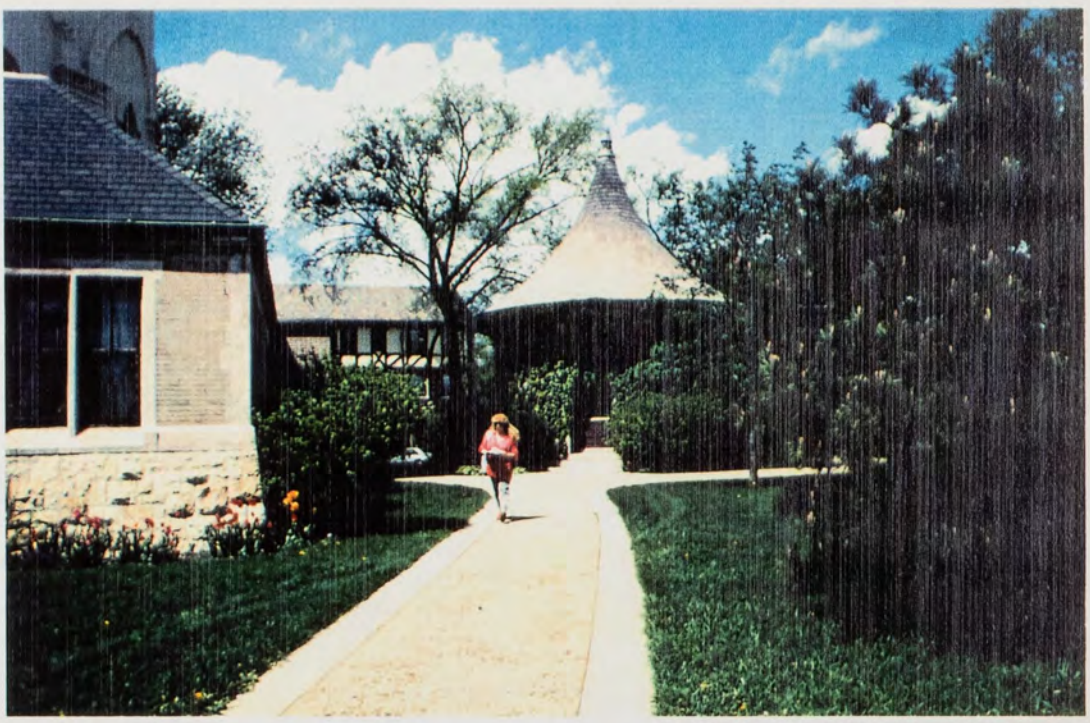
While the layout seems well integrated with the existing landscape and topography, the original site was 'uninviting prairie land' prior to 1869. Olmsted rejected the gridiron plan as being "too stiff and formal for such adornment and rusticity as should be combined in a model suburb". A series of curvilinear streets was established to distinguish Riverside from its surrounding prairie. A parkland was established along the river on the floodplain.

Adjacent to the railroad Vaux established a civic centre with a hotel, commercial and institutional buildings, and a water tower. There were also a series of apartment buildings adjacent to the centre, with less dense residences further out.

The strong centre, diversity of building types and integration with landscape, gives Riverside its individual character. Pre-dating Hampstead Garden Suburb by some 30 years, Riverside contains many of the elements that were to appear in Hampstead Garden Suburb.



The Riverside water tower served the entire suburb and provided a focal point for the civic centre of Riverside.

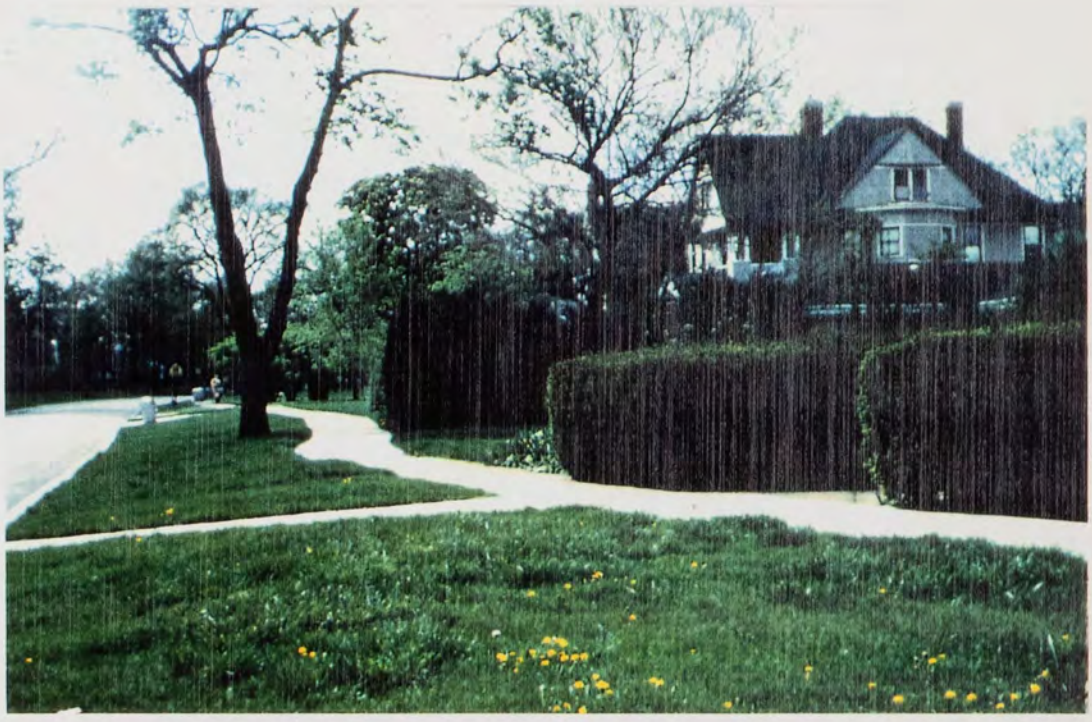


The civic centre still functions today. The museum pictured above houses the local history records.

Institutions such as the school pictured above, are close to the centre of Riverside.

Apartment buildings are located close to the centre and help create a strong focus to the suburb's centre.

Density decreases as one moves further from the centre. The gradation provides variety and diversity.



The integration of streets with landscape gives Riverside its distinctive character.

The majority of houses in Riverside share common elements such as the front porch.

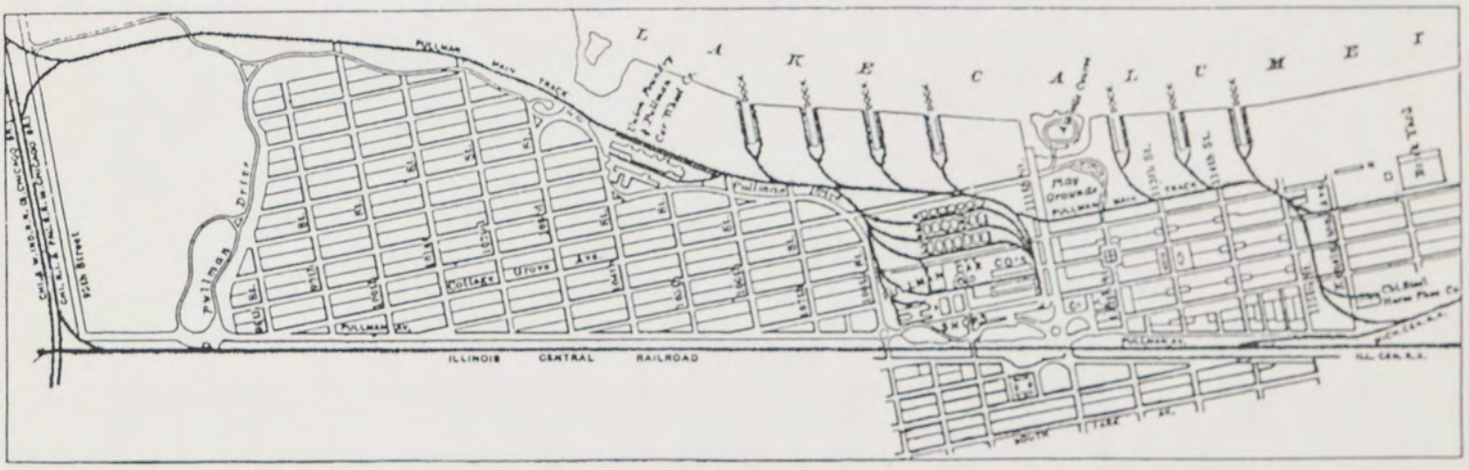
Several houses have been influenced by Wright and the Prairie School of architecture.

(vii) Pullman, Illinois. 1880.

George M. Pullman's town was the first of the romantic industrial villages in the United States and pre-dates Port Sunlight by some eight years. It was designed in 1880 by the architect Solon Beman and landscape architect Nathan Barrett, possibly the first such collaboration to produce a new community.

George Pullman's visions were simultaneously idealistic and opportunistic, in that he believed that a good domestic environment close to an industrial complex would benefit worker and employer alike.

Pullman was built on a portion of a 4,000 acre site 12 miles south of Chicago. Bounded on one side by Lake Calumet and on the other by the railroad the plan was a gridiron bounded by a green belt of open land. In addition to open space and social facilities, Pullman had a sophisticated infrastructure incorporating separate stormwater and sewerage systems.



Plan of the town of Pullman.

The original arcade on Market Square comprised a 90 foot long glass-roofed gallery.

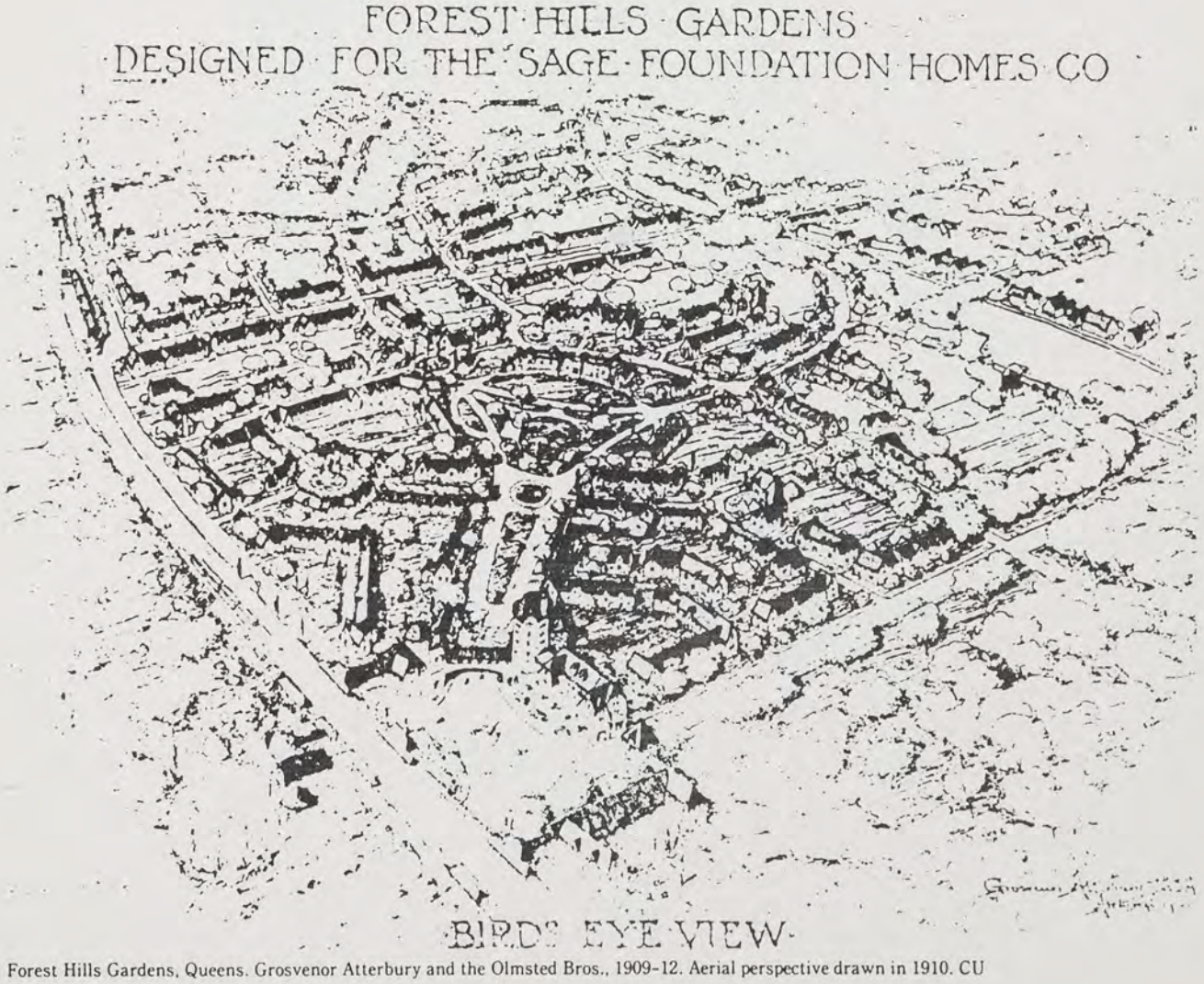
The workers' housing was solidly constructed of brick with slate roofs. Backyards are connected to rear service lanes.

(viii) Forest Hills Gardens. 1912.

Forest Hills Gardens. The New York commuter garden suburb where Clarence Perry discovered the principle of the neighbourhood unit.

The influence of Letchworth (1903) and Hampstead Garden Suburb (1905) was seen almost immediately in the United States at Forest Hills Gardens in New York. Built on land acquired in 1909 by the Russell Sage Foundation, Forest Hills Gardens was commenced in 1912. The design was a collaboration between the Olmsted brothers (who designed the landscaping and master plan) and the architect Grosvenor Atterbury.

Like Hampstead Garden Suburb, Forest Hills Gardens was designed for a mix of incomes with apartments at the centre and detached houses throughout the suburb. The centre is focused around the rail station like Riverside. The urban square has a strong architectural presence. Enclosed bridges span the roads leaving the square, initiating a progression from the urban square, past dense apartments to the more rural edges. The sense of place created by this transition is very strong.



Forest Hills Gardens, Queens. Grosvenor Atterbury and the Olmsted Bros., 1909-12. Aerial perspective drawn in 1910. CU

The bridges spanning the roads leading to the centre help define the civic core of Forest Hills Gardens.

The winding roads and detached houses combine the landscaping at Riverside, Illinois, with the English picturesque tradition.

3. THE NEW TOWNS

(i) Garden Suburb to Automobile Suburb

At the time of Ebenezer Howard's death in 1928, the two Garden Cities of Letchworth and Welwyn had reached a combined population of 40,000. To absorb the increased population of Great Britain between 1898 and 1945 would have required 300 such cities.

At the end of the Second World War the formation of satellite cities became Government policy. Where Ebenezer Howard sought to create a network of self-sufficient towns containing all income groups, the British New Town has been used as a satellite for big cities, in many cases being populated principally by factory workers.

The 1944 Abercrombie Plan for Greater London used green belts and satellite towns to limit the growth of London. The decentralisation of industry laws made it possible to provide each town with an economic base.

The fundamental difference between Howard's Garden City and the New Town is the automobile which has become the primary means of transportation for the latter. Howard's model for a self-contained community surrounded by a green belt was most suitable for railroad communities. The model worked well both in the United Kingdom and United States. It is not economically viable for development to be confined to areas around station stops when cars are available.

The shift from dense garden suburbs such as Hampstead and Forest Hills to vast regional centres incorporating housing, retail and office parks, has occurred both in the United Kingdom and United States.

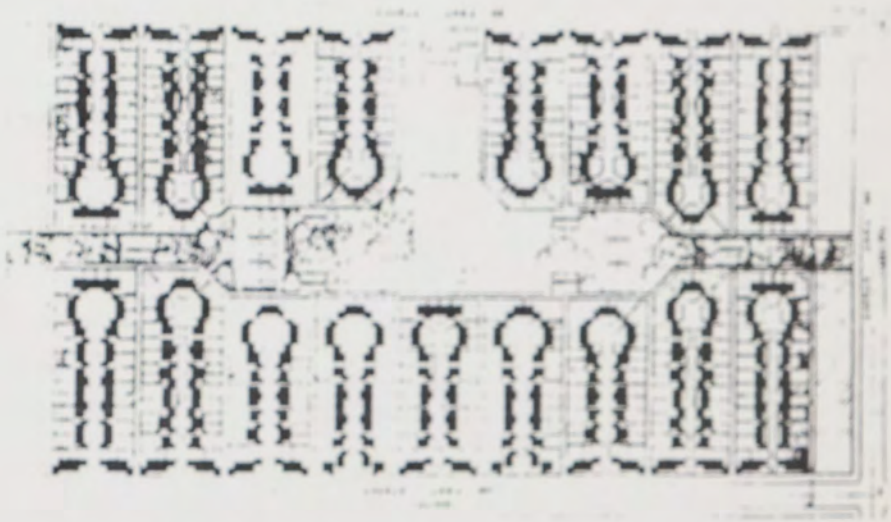
Comparitive diagrammatic sections of an old town (top) and Harlow New Town (bottom).

(ii) The Radburn Idea

In 1928 there were 21,308,159 automobiles registered in the United States (as compared with 5 in 1895). The traditional grid required a pedestrian to cross a vehicular street 20 times a mile (C.S. Stein, Towards New Towns for America, 1957). It was in this context that the Radburn Plan emerged. Clarence Stein was familiar with Howard's Garden City concept and had tried to adapt its principles at Sunnyside Gardens, New York, in 1924. At Sunnyside, Stein had placed apartments at the perimeter of each block to create green commons within. The notion of the green belt and industry was not pursued due to the size of the project, and its proximity to New York City. Sunnyside was considered successful in many ways.

Encouraged by Sunnyside, Stein and his associates were keen to expand on the principles initiated at Sunnyside on a larger scale. Equally important was to integrate the automobile into the suburb. For this purpose several devices were developed:

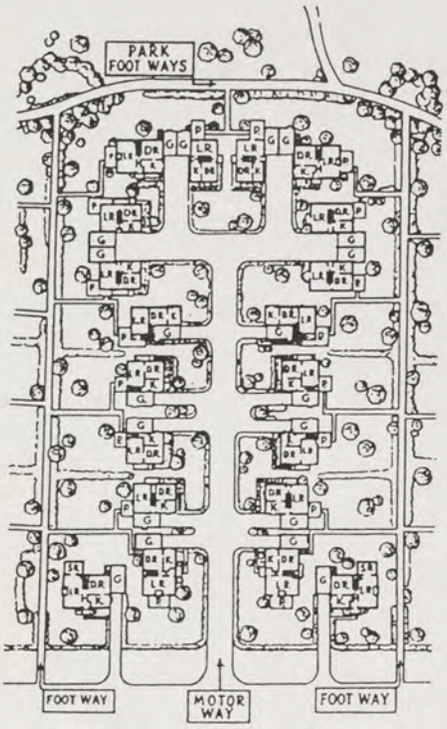
1. The super block - small blocks were consolidated to reduce the number of roads.



Theoretical study of a superblock, dated January 17, 1928. It was soon the basis of the Radburn Plan.

2. A specialised hierarchy of roads for each use - from service lanes to each building, secondary collector roads around the super blocks, main through roads connecting neighbourhoods, and parkways for connection to other communities.

3. Complete segregation of pedestrian and automobile - underpasses and overpasses were used at necessary intersections. The separation of the pedestrian path from the access road was proposed by Herbert Emmerich, the General Manager of Sunnyside, in 1927.



Plan of a typical "lane' at Radburn.

4. Houses turned around - living and sleeping areas faced towards the garden and pedestrian path and the service rooms towards the access roads.

5. The park as the core of the super block.

The super block as a neighbourhood unit in Radburn was to influence Clarence Perry who defined a neighbourhood in 1929 as "a group of houses and apartments large enough to require a primary school" in the first regional plan for New York City.

Clarence Stein's re-working of the cul-de-sac seen at Hampstead Garden Suburb was greatly admired by Barry Parker who fed the new ideas back to the English Garden City Movement. In time the Radburn idea would influence most suburbs in the world.

General Plan of Radburn showing neighbourhoods.

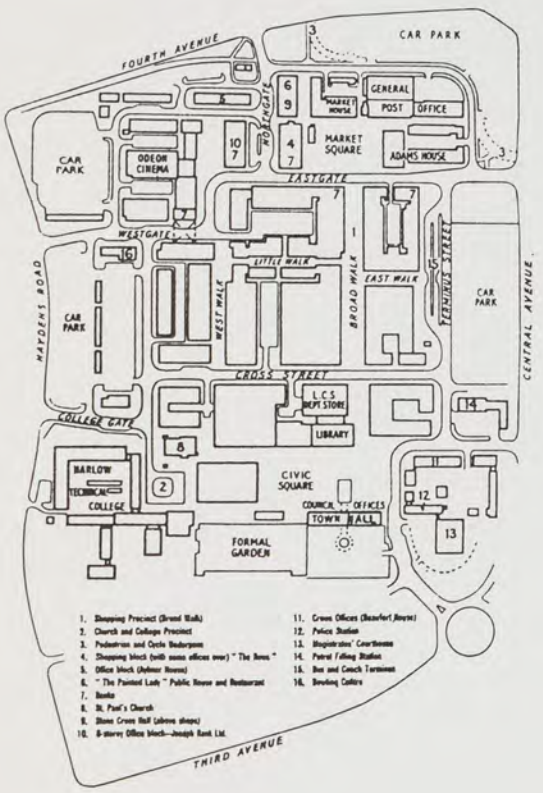
(iii) Harlow New Town. 1947.

Planned for a population of 70,000 inhabitants, Harlow is over twice the size of Howard's ideal Garden City. Harlow's principles of a green belt subdividing the town into quadrants derive from Letchworth Garden City.

New towns such as Harlow answered three post-war demands. Firstly, they were an answer to the unplanned metropolis of the inter-war years. Secondly, they were a logical way to implement the very precise plans devised during the War. Thirdly, the new towns provided an opportunity for social engineering so popular after the War.

Unlike the earlier Garden Cities and Suburbs which were designed by architects and landscape architects, Harlow was created by a planner as a regional centre. While Ebenezer Howard's principles of respecting the existing topography and creating green belts were followed by Harlow, none of the spatial elements required to create a centre were used. While there are copious green "wedges" and parkways, there is no urban core.

The other aspect that was quite different from the earlier Garden Cities was the introduction of Modern architecture into housing. While Howard's principles were important, it was the architectural expression created by Unwin and Parker and others that gave the Garden Suburbs their character. Thus, while the devices such as commons and quadrangles exist in Harlow, in figure ground, they do not translate into spatial elements.



Harlow Town Centre.

Spaces such as this common bear little resemblance to those at Letchworth except in figure/ground.

Thus cul-de-sac is similar in plan to those in Hampstead Garden Suburb in plan form only.

This streetscape is similar to that shown earlier in the illustration of Hampstead Garden Suburb in terms of building height and form. The attaching of the houses in a continuous strip and the absence of trees changes the character of the street dramatically.

The lack of detail has led owners to alter their facades. Unadorned flats are those rented out by the Development Corporation.

The separation of the car and pedestrian has resulted in dedicated parking areas. Compare this with the parking area in Letchworth.

View of typical rear gardens. Privacy between lots is minimal.

(iv) Milton Keynes

Milton Keys was planned as the first new 'City' with a projected population of 250,000. It is overseen by a Development Corporation. Planned largely by engineers it assumes that most movement will be by motor car. The central retail area has been transformed into an enormous internal mall containing department stores, shops and restaurants, as well as civil areas. It is flanked by open carparking areas. The provision of carparking to all houses and units has resulted in the ground level of many residential streets being dominated by garages. Landscape in many cases is the front lawn.

Interestingly, the newer Milton Keynes residential blocks are returning to the vernacular. Buildings are grouped around courts, but the landscape of the former Garden Cities is diminished. The forms enclosing lawns are too monotonous. Perhaps the rigidity reflects the absence of good spatial planning. There is no sense of real topography.

In some new areas, the Essex vernacular made popular by the Essex Design Guide appears. This village typology was born out of the small Essex village where shops, civic buildings and houses were all mixed together in a very tight urban arrangement. In Milton Keynes, the village 'townscape' lacks a heterogeneous character. There are no pedestrians.

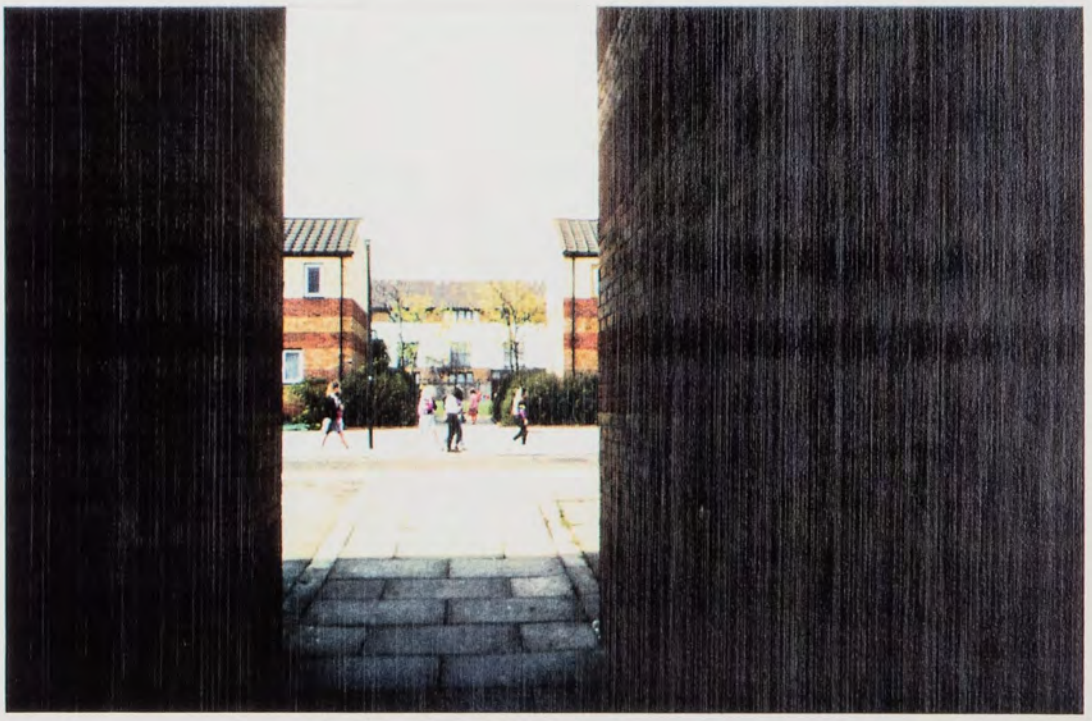
View of the retail centre of Milton Keynes.

" Pedestrians do not have priority " .... applies to much of Milton Keynes.

Recent projects at Milton Keynes have reverted to the grassed common. The bland facades surrounding the common detract greatly from its appearance.

Pedestrian paths link the adjoining landscaped areas. The commons are separated from the streets.

Many of the developments are urban in character. Unfortunately they are not part of an urban fabric containing shops, pubs, etc...

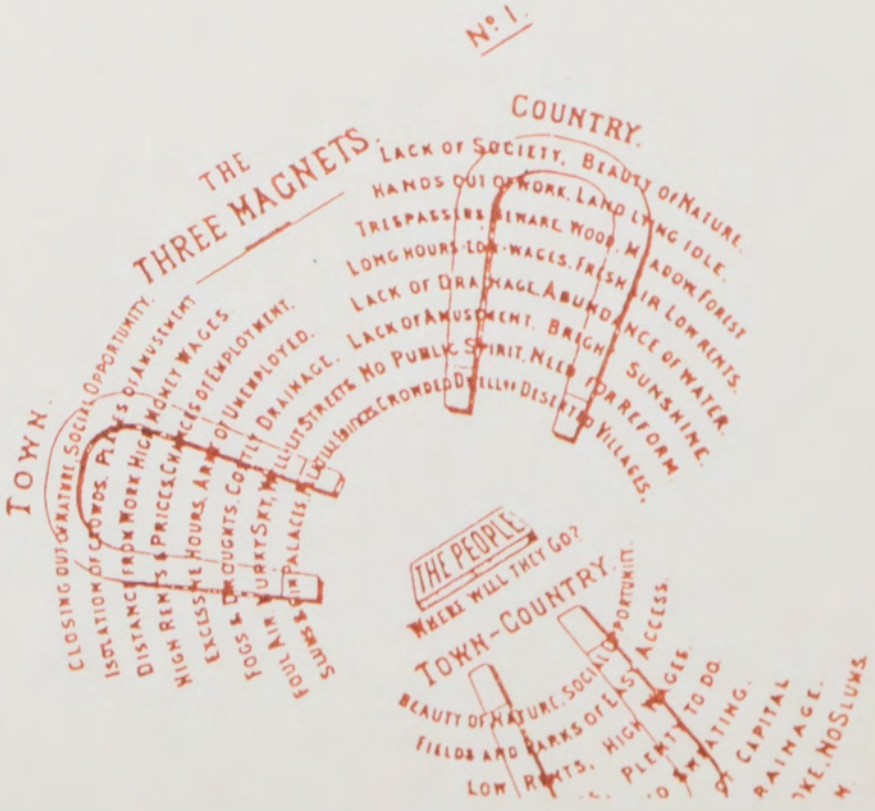


In this development pedestrian paths connect houses and the commons to the street. As the illustration on the previous page indicates, the common is not directly connected to the street. There appeared to be more activity in the street rather than on the common.

This development uses a shared road for vehicle and pedestrian access. Developed in accord with the Essex Design Guide, this suburban enclave contains no common facilities such as shops or cafes.

This development is 100 metres from the scheme shown above. Each is a separate cul-de-sac project. Both examples are mis-interpretations of the intentions of the Essex Design Guide's principles.

PART 3:
THE CONTEMPORARY
SUBURB



1. CONTEMPORARY ISSUES - THE UNITED KINGDOM AND THE UNITED STATES

(i) Questioning the Automobile Suburb

While the automobile transformed the American city from a tight urban structure to a sprawling Suburbia, the European cities containing historic cores reacted against the increasing influence of the freeway.

By the 1950s, American traffic engineers could demonstrate, with the aid of computer models, that a vast new network of urban highways would be required to cope with the rising curve of traffic (Peter Hall, Cities of Tomorrow, 1988). Either massive reconstruction would be required, or traffic would have to be restrained.

In the world's first freeway revolt, San Francisco rejected a plan to construct a double deck freeway along its historic waterfront. A rapid transit system was built and the freeways were halted. The same thing happened in Toronto, London, and most European cities. The result was a massive shift of investment into urban mass transit. While this shift has saved cities such as San Francisco and its green belt, the transit systems have not coped with the volume of suburb to suburb commuter journeys.

While it appears that the dominance of the motor car is being questioned in the suburbs, a solution is not yet obvious. Serious reconsideration of highway codes has occurred in the United Kingdom during the 70s. While this hasn't really happened in the United States yet, future options such as the Pedestrian Pocket and Traditional Neighbourhood are now being proposed.

(ii) Smaller Families

Like Australia, both the United Kingdom and United States are experiencing a fundamental demographic shift towards smaller domestic groupings. This not only has a profound effect on house form, but impacts on concepts of neighbourhood and lifestyle.

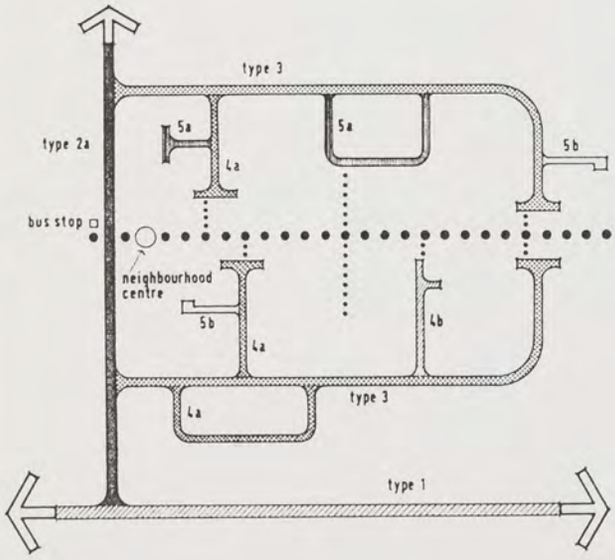
(iii) Affordability

Both the United Kingdom and United States share the Australian dream of home ownership. Until recently, all three countries have had an ownership rate of between 60% and 70%. The growing size of the major cities is pushing up the price of land convenient to the city in each case beyond what most people can afford. In each case a re-thinking of the suburban house will be required.

2. THE ESSEX DESIGN GUIDE

(i) Re-thinking the Highway Codes

Illustration from the Essex Highway Standards.



The proposed hierarchy of vehicle routes as proposed in the revised Highway Standards.

During the 1970s the Highways Standards section of the Design Guide was revised in the light of the Department of the Environment's Bulletin 32. The revised standards have substantially altered the perception of access within a residential precinct from being dominated by the car to being designed around the pedestrian.

In essence, the earlier Highway Standards espoused the 'Radburn idea' of total segregation between the car and the pedestrian. While this seemed a sensible and sound solution to the car in residential areas, it tended to result in too many roads without any pedestrians or any other form of human activity. Houses ended up with car and pedestrian entries with neither being a 'front' or 'back' door.

The revised guidelines do not reject all aspects of the 'Radburn idea'. Dedicated pedestrian paths occur as well as shared streets that cars and pedestrians use.

In addition to re-thinking the role of the car in the suburban hierarchy, the Essex Design Guide identifies particular characteristics of Essex and attempts to codify them as Design Principles. These principles address road and pedestrian path layouts ,as well as the architectural spaces created by buildings, in a similar way to those at Letchworth.

Adoptable Road Types

ROAD TYPE	DESCRIPTION	MAX LENGTH OF CUL-DE-SAC	MAX NUMBER OF UNITS SERVED	MINIMUM CARRIAGEWAY WIDTH	COMMENTS
1	Local distributor			7.300 or 6.750m with bus layby	Verges min 1.200m required. Normally no frontage access. Bus route.
2a	Major access road			6.750m	Frontage access/egress in forward gear. Bus route.
2b	Transitional road	Usually short length		6.000m	Frontage access. Egress in forward gear near junction.
3	Intermediate access road		300	5.500m	No. + width footways related to pedestrian flow. No access restrictions. Reasonably convenient parking. Possible bus route.
4a	Minor access road		100	4.800m	Number + width of footways related to pedestrian flow. Convenient parking. Special surface finish.
4b	Minor access way	150m aligned to reduce speed	25	Combined pedestrian/ vehicular surface 4.800m (including pedestrian margin/verge)	Convenient parking within the curtilage of the dwellings. Special surface finish.
5a	Mews	100m aligned to reduce speed	25*	Combined pedestrian/ vehicular surface 4.800m 1.000m min pedestrian margin.	Special junction detail. Urban character. Special surface finish.
5b	Mews Court	36m	12*	Combined pedestrian/ vehicular surface	Special junction detail. Urban character. Special surface finish.

* Where garaging is located outside the mews the number of units may be increased appropriately.

(ii) Design Principles

At present Essex, Surrey, and London allow higher densities than other areas in the UK. While densities in London are significantly higher than those proposed in Sydney, Essex and Surrey provide relevant examples.

In 1973 the Essex County Council introduced its own set of residential design guidelines known as the Essex Design Guide. It replaced the earlier Parker Morris guidelines that established minimum sizes for rooms, open space etc... These minimum standards soon became the norm for developers throughout the UK.

The Essex Design Guide is part of the County Development Plan and proposes that

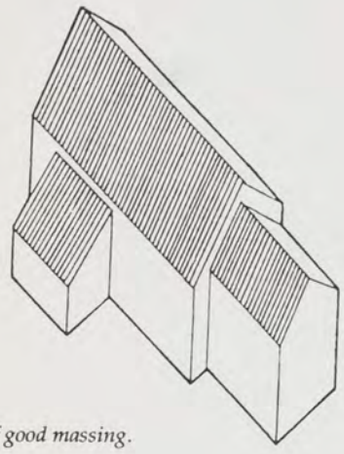
- In outer Essex, density in new developments should be 13-15 dwellings per acre
- Inner areas can be up to 35 dwellings per acre
- In areas intended for large scale development, smaller developments will not be permitted if they do not fit in to the general layout of the larger development
- In areas being re-developed, small sites that cannot meet the standards of layout and design will not be given permission to re-develop

The Guide is based on the premise that the above densities can be realistically achieved with no loss of amenity. Two fundamental principles underlie this thinking:

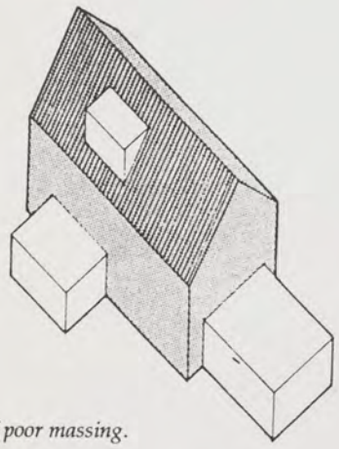
1. The omission of all useless space on the public side of house allotments
2. The reduction of ground cover of individual buildings by using two and three storey buildings

The guide notes the following benefits:

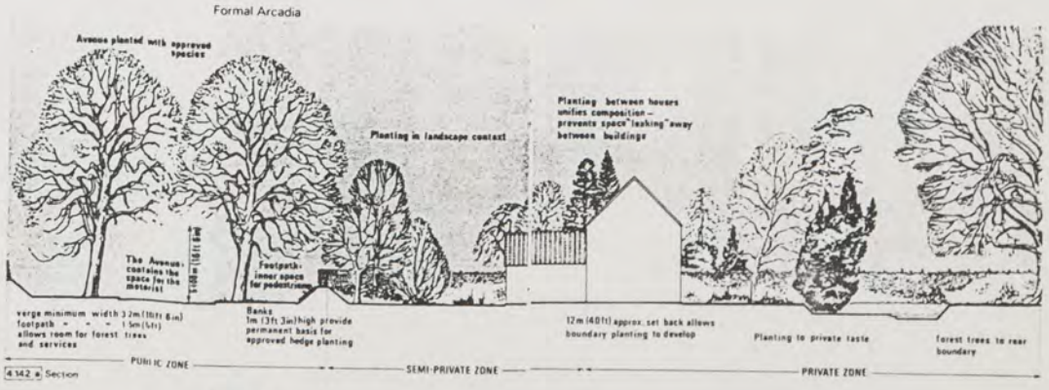
- Marginal but significant land savings
- More useful public space
- Larger private gardens



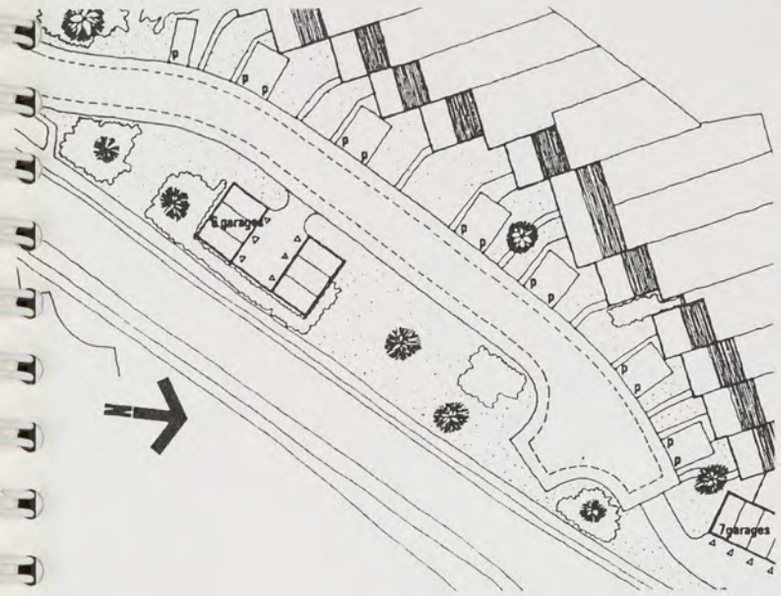
Example of good massing.



Example of poor massing.

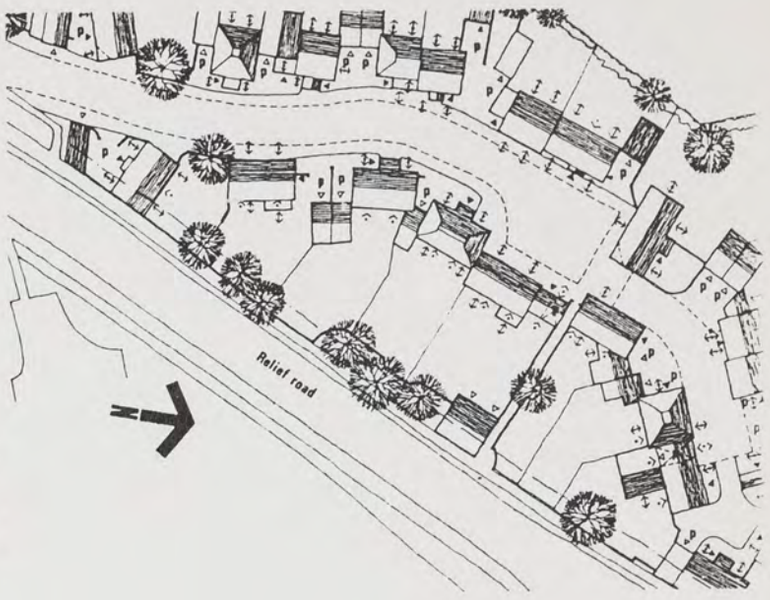


Example of a 'Rural" type.



4.32 Unacceptable scheme

Uses neither the rural nor the urban system of spatial organisation. The site is too narrow to accept this suburban type of development on both sides of a road, therefore only one side is developed. To try and avoid this being uneconomic, the maximum number of dwellings (13 terrace units) are crammed along the single frontage. This developable length is so precious that garages have had to be divorced from the houses and sited in blocks on left over land. The dwellings face a public space which has no sense of enclosure and is dominated by parked cars, garages, the estate road and the relief road with its fast moving heavy traffic.
This unattractive, low density scheme of terrace houses is unlikely to be very profitable, therefore the tendency will be to use cheap materials and details to cut costs, thus further reducing the quality of the external environment.



4.33 Suggested alternative layout

KEY
- house access
- garage access
- new building
- above eye level wall
- new planting
- p parking space

Fenestration limitations
- ↔ normal windows to ground & 1st floor
- ↔ normal windows to ground floor only
- ‹·› normal windows to 1st floor only
- ‹· high level windows at 1st floor only

The Visual Criteria in Practice

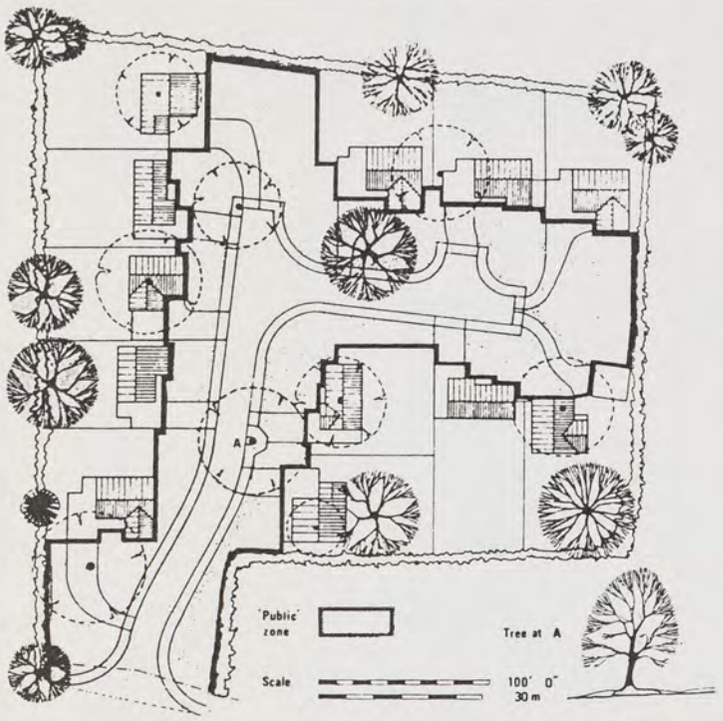
The scheme uses the urban system of spatial organisation, consisting of a short curving street, with an effective height width ratio of 1:2.5 terminated by a small static square.
Leading from the square is a strongly enclosed linear space (based on a Type 5 road) and narrow pedestrian ways leading to the school and town. All these places are secluded from the noise of the relief road, which is treated as a separate linear space, bounded by walls buildings and trees, to give it an attractive edge and isolate the adjoining gardens.
All the houses and garages use the Essex vernacular range of materials and visually articulated additive forms of the same family.

Integration of Physical and Visual Requirements

By making use of the space saving type 5 road, privacy by design and the elimination of all useless space on the public side, it has been possible to develop both sides of the streets, thus more than doubling the useable frontage.
This distance is now sufficient to accommodate 22 linked detached and semi-detached houses, all with garages next to the unit.
The scheme is not only attractive but makes efficient use of an awkwardly shaped site.
Steep pitched roofs to garages aid visual enclosure of the street.
Where buildings do not separate the public and private zones, the division is provided by above eye-level walls.
The visual dominance of parked cars is reduced by siting between buildings.
Adequate interest and identity is given to the street scene by using a limited range of house types but varying the grouping and roof sections and by the use of garages, porches and walls as linking elements to add further variety to the architectural compositions.

'Urban' case study.

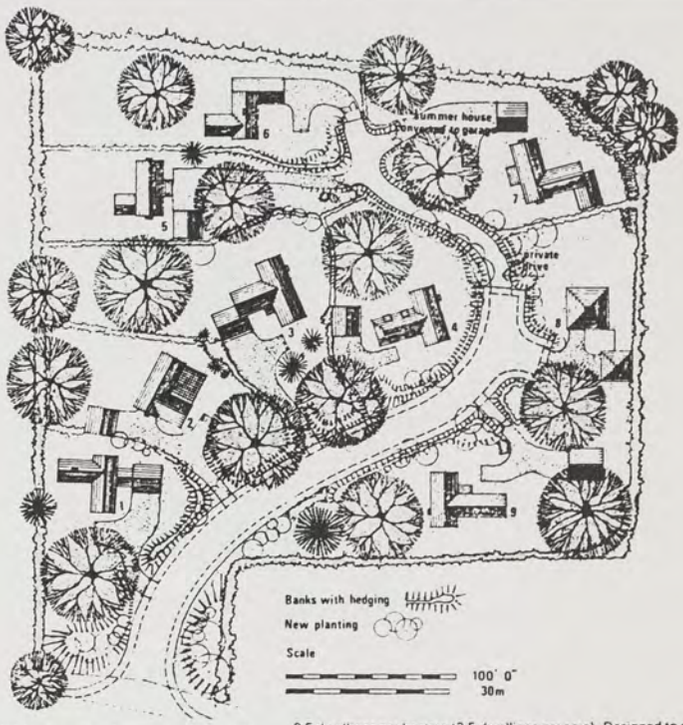
4.22 Unacceptable Scheme



11 dwellings per hectare (4.5 dwellings per acre) fails to meet the following physical and visual criteria.

1. PHYSICAL
(a) Fails to utilise space efficiently 46% of site used for public zone (unscreened access drives are part of the public zone).
(b) Insufficient privacy by remoteness or design. (See sections 2.13 and 2.21)
2. VISUAL
(a) Fails to opt for either urban or rural systems of spatial organisation landscape does not dominate—buildings do not contain space.
(b) Fails to take account of physical characteristics—8 trees felled; tree at 'A' will die; too close to road, roots damaged.
(c) Roads, driveways and parked cars too dominant.
(d) There are no walls to permanently screen private gardens from public places.
(e) House types fail to meet visual criteria set down in section 3.44.

4.23 Suggested alternative layout

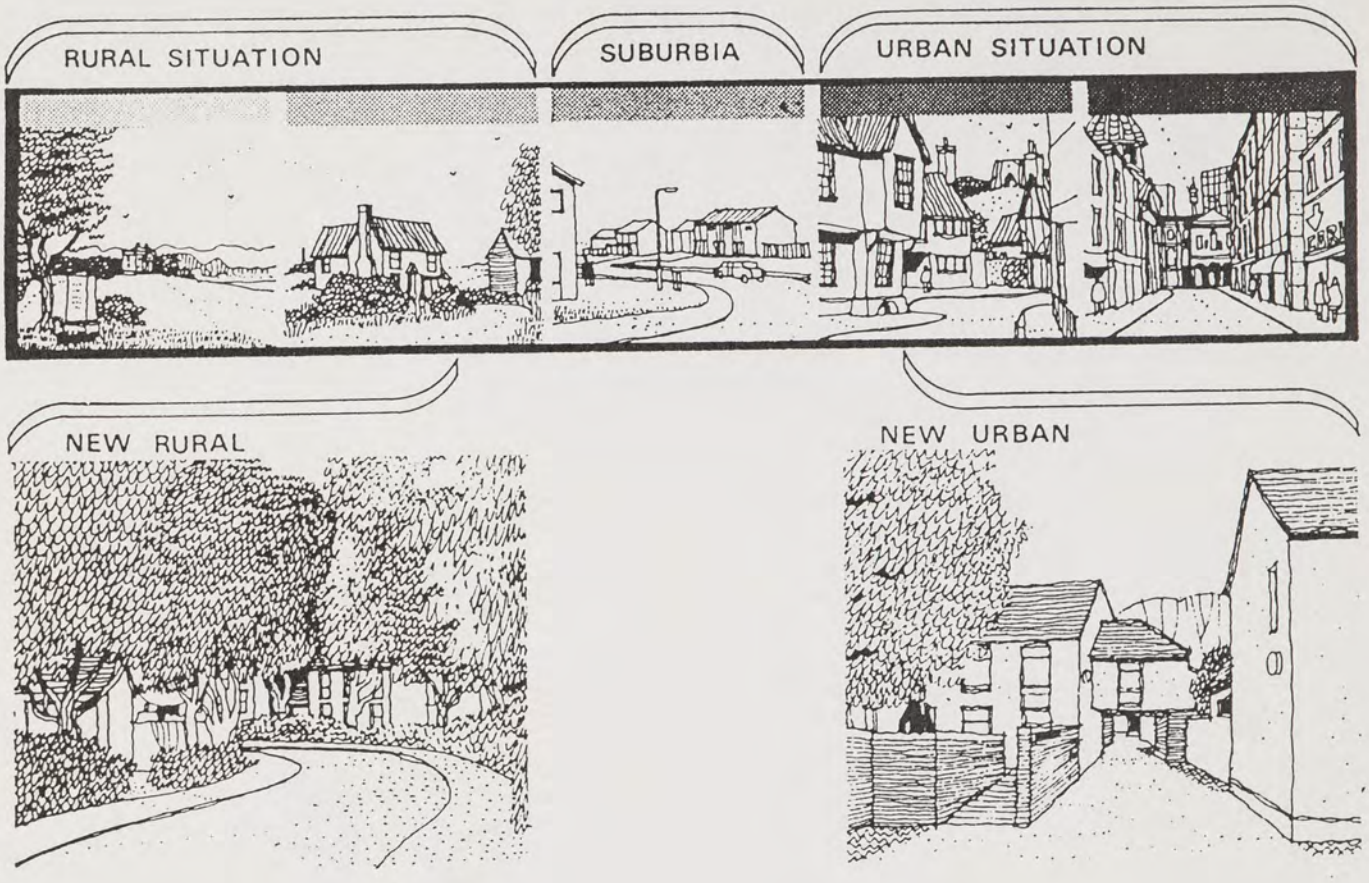


NOTE. It would of course be possible to develop this site at a higher density than shown in 4.23, and still retain the trees. This would, however, involve the use of both urban and rural principles of spatial organisation. If, for example, houses 1, 2, 3 and 4 are linked together by further buildings, urbanism is immediately the dominant principle; the trees will modify the urban space. (see 3.316 the architectural use of trees)
(as illustrated above in Fig. 3.316c)

8.5 dwellings per hectare (3.5 dwellings per acre). Designed to satisfy the physical and visual criteria not met by the unacceptable scheme 4.22.

1. PHYSICAL
(a) Utilises site efficiently—only 20% used for public zone, (access drives, screened and gated, are part of private zone).
(b) Privacy requirements met by design—in public zone buildings set back to allow screening by hedges, banks and trees. In private zone landscape or remoteness effectively prevent overlooking.
2. VISUAL
(a) Uses rural system of spatial organisation, landscape contains and dominates buildings.
(b) Existing trees are retained; their random grouping suggests informal arcadian solution.
(c) Winding road with dark surface combined with parking and garaging concealed in landscape reduces visual intrusion of the vehicle.
(d) New hedges, banks, and tree planting visually contain the public space.
(e) House types are designed in accordance with the criteria in section 3.44.

'Rural' case study.



Diagrams from the Essex design guide illustrating 'Urban' and 'Rural' types

(ii) Design Principles

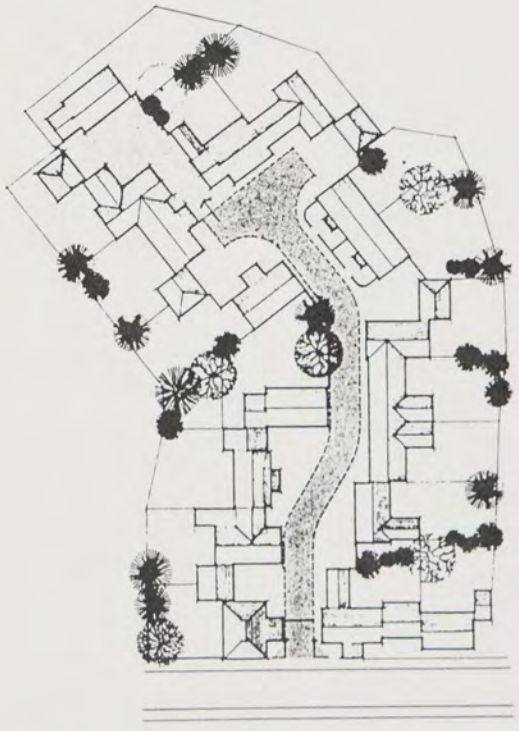
What differentiated the Essex Design Guide from other policies of its time was its series of design principles that it tried to describe by performance. The Guide required that ..." new housing areas shall create a visually satisfactory environment acheived by employing either the principles of:

1. Buildings set within a dominant landscape of a character indigenous to Essex, or
2. Built forms to satisfactorily enclose spaces of individual identity."

The notion of either a Rural Setting where the landscape dominates or an Urban Setting where buildings are arranged to enclose spaces, was a reaction to the spread of Suburbia in Essex which was felt to be characterless and detracting from the existing qualities of Essex towns and villages which were either Rural or Urban. The new suburb was neither. The Guide maintained that its design principles were not merely based on a matter of opinion or taste but on a recognition of the character of an existing place.

These two principles mark a real departure from previous codes. Prior to the Essex Design Guide policy had been primarily concerned with achieving a physically satisfactory environment for people when they were within their house envelope and the curtilage of their own dwelling. The code did not recognize that a successful neighbourhood depended on the house in relation to its surrounds.

The current Guide recognizes that smaller houses and lots are required. To avoid creating housing stock that is undesirable in the future, wider and shorter blocks may be more suitable as the houses may be extended without loss of privacy. Certain house plans and roof forms may encourage or inhibit later roof extensions.



Plan of a Mews Court with a shared drive/ pedestrian path.

The Mews Court

One of the new types to emerge from the Essex Guide is the Mews Court. A result of the revised Highway Standards, the Mews is a short length cul-de-sac that combines car and pedestrian access. This solution allows a relatively high density for small infill sites.

(iii) Case Studies

1. MARKETPLACE, INGATESTONE ESSEX 1978
ARCHITECTS: DAVID RUFFLE ASSOCIATES

The site lies in the centre of Ingatestone conservation area in the village of Ingatestone. The scheme has been designed in compliance with the Essex Design Guide. It is centred around a mews court that is shared by cars and pedestrians.

The scheme achieves a high density without crowding, by using two storey units with one storey garages between them. In this way a suitable scale is maintained. The scheme is a good example of infill medium density housing and could serve as an example for other similar built up sites. There are a total of ten units in the development. It was awarded the RIBA Good Design in Housing Award in 1979.

View of the driveway into Marketplace. The paved roadway is shared by vehicles and pedestrians.

The cul de sac off the entry is gravel and is maintained by the owners. The grouping of buildings is quite urban and fits in with the surrounding village of Ingatestone, a small historic village.

2. BRENTWOOD PLACE, BRENTWOOD, ESSEX
ARCHITECT: DAVID RUFFLE ASSOCIATES

The scheme for Brentwood Place is similar to Ingatestone in that the units are grouped around a series of Mews Courts. In this case the site is much larger and is not an infill. The combination of one and two storey buildings are designed in the 'Essex Vernacular' and are detached except for garages and car ports. Screens are used to achieve privacy as required. Public common areas are predominantly hard paved.

Although less dense than Case Study 1, 64 units have built. The scheme received an RIBA Good Design in Housing Award.

While designed in a traditional manner, the buildings are also constructed in vernacular materials common to the Essex area. They are a good example of contextual design that is not a pastiche of arbitrary styles. Unlike the 'Federation' project homes currently being built in Sydney, the Essex houses are not standard boxes dressed up with trim.

The proximity of houses creates a streetscape that is similar in scale to Hampstead Garden Suburb. Here the landscape is very much a secondary element- a characteristic of Essex villages.

Enclosed garages create the impression of detached houses. Each house has its own garage.

Garages are incorporated into the house itself in some places. This solution is only possible in two storey houses when higher densities are to be maintained without excessive ground cover.

A paved Mews Court creates an urban space under the terms of the Essex Design Guide.

3. LUKINS MEAD, GREAT DUNMOW, ESSEX 1990-93
ARCHITECTS: DAVID RUFFLE ASSOCIATES
CONTRACTOR, COUNTRYSIDE PROPERTIES PLC

This scheme by the same architects comprises 235 units on a green field site in Great Dunmow. The project was only partially complete at the time of the author's visit. A similar architectural expression is used for the units although a less dense site plan is used. The layout is in accord with the 'Rural' Essex guidelines.

Lukins Mead contains one, two, and three bedroom terrace units, as well as three, four, and five bedroom detached houses. There is also a home for the frail and elderly.

While based on the mews court model, the houses at Lukins Mead also address the street.

Pathways connect the various neighbourhoods at Lukins Mead.

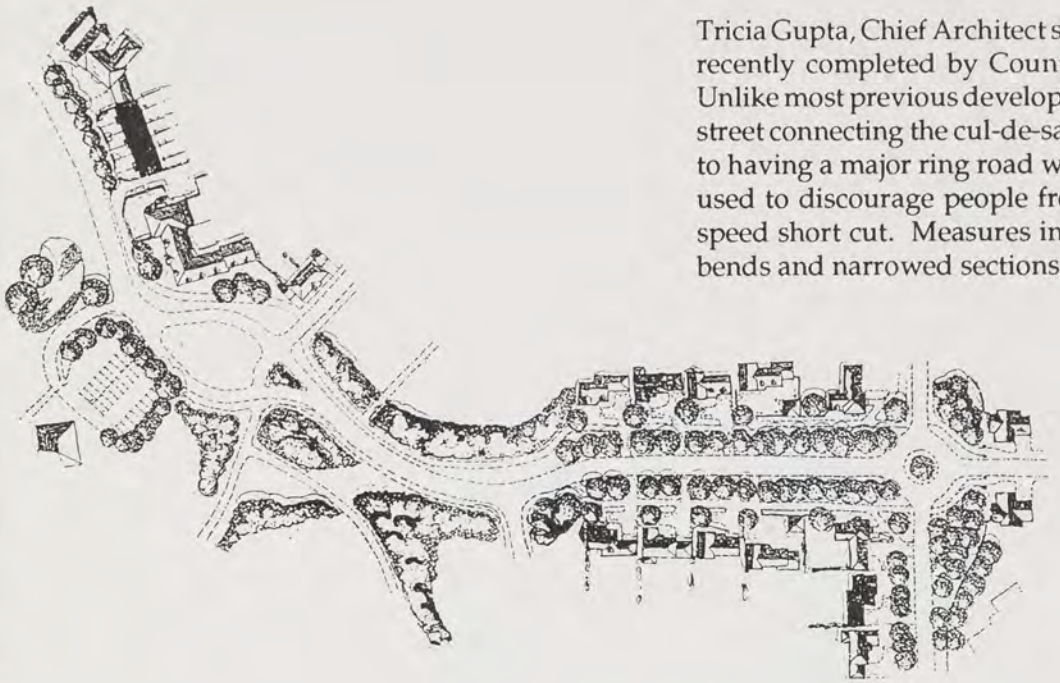
(iv) The Design Brief

WHITE COURT GARDEN VILLAGE DESIGN BRIEF

In the UK county authorities write a Structural Plan that accords with the Central Government Strategy for that area. From this District Councils formulate Local Plans and Local Area Action Plans. For sensitive areas Development Briefs are developed.

Planning applications are dealt with by district authorities in a similar way to that in NSW.

If a proposal departs significantly from the Local Area Action Plan, an outline application is usually lodged. This would be similar to a re-zoning application in NSW. The outline application is made up of a masterplan and Design Brief. Negotiations between the developer and planning department will take place at this point. This all takes place prior to the developer buying the site. An option to buy would have been put down. The final price of the land will be established when planning permission is granted and it is clear how many units etc... will be permitted. The planning process is therefore a key factor in determining the land value. Outline planning permission (similar to development approval) is linked to a section 106 agreement which is legally binding on the landowner, the developer, and local authority. There is no appeal open to any party after this. As part of an approval open space will have to be developed and landscaped by the developer. The open space will then be maintained by the council who will also own it.



Plan of the central street.

Tricia Gupta, Chief Architect showed an example of a design brief recently completed by Countryside PLC for Braintree, Sussex. Unlike most previous developments, the Braintree site has a main street connecting the cul-de-sacs in the scheme. This is in contrast to having a major ring road with distributor. 'Traffic Calming' is used to discourage people from using the main road as a high speed short cut. Measures include roundabouts, speedhumps , bends and narrowed sections of carriageway.

The Scheme

White Court Garden village is planned to accommodate 5,000 people in a combination of Urban and Rural environments. It claims to draw from the examples of Letchworth and Welwyn Garden City.

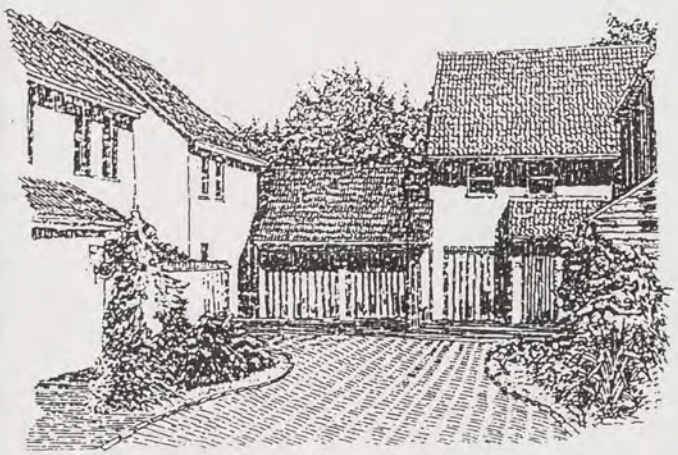
The scheme incorporates shopping, educational, community health and employment facilities in addition to the residential component. It is considered that a community of 5,000 people will allow facilities to be within walking distance of all houses, and a community to develop. It relies heavily on the Essex village model of village green and meandering streets.

It also incorporates the principles of Legibility, Permeability, and Variety as advocated by Paul Murrain of Oxford Polytechnic in Responsive Environments
(The Architectural Press, London 1985), a critique of the Radburn Idea.

The scheme is an extension of an existing settlement and is broken into three inter related smaller groups.

The most important departure from the standard subdivision is that a road will run through the centre of the scheme rather than a ring road with collector roads and cul-de-sacs (derived from the 'Radburn idea'). Former restrictive traffic regulations would not have permitted such a layout.

While the subdivision itself is innovative, the style of houses is traditional, closely following the Essex vernacular. Many of the houses will be grouped around the Urban Mews Court seen in the earlier case studies.



Mews Court.

Pedestrian pathway.

'PERMEABILITY' PRINCIPLES AS USED AT WHITE COURT GARDEN VILLAGE

Permeability

The principle of permeability relates to the extent to which an environment allows people access through it, from place to place. The layout of the garden village will incorporate systems of public spaces: footpaths, cycleways, roads and open spaces (greenways). In this way alternative routes will be available depending on whether the person is on foot or in a vehicle. It is in the experience of these various routes that the resident and visitor will become familiar with different parts of the village and develop a sense of belonging or a sense of place.

This may require signage but by incorporating visual references in terms of vistas, landmarks and focal buildings it will be clear where the public spaces will ultimately lead to. Public spaces should unify various parts of the garden village, in a similar way to that which is found in villages in Essex where there is a myriad of streets and footpaths throughout the village.

Legibility

If permeability leads to greater accessibility and experience within the village, it will be important for the resident to have a mental image or map of the layout of the garden village. In moving through any place it is the visual quality which is most easily referred back to. This principle can be described as legibility. It is for the designer to facilitate this legibility, by creating spaces or buildings that have an individual identity or are easily recognised as having a spatial relationship with other parts of the settlement. In addition, the resident or visitor will attribute a particular meaning to a space or building be it emotional or practical.

To create legibility within the layout there are features which will contribute to a person's image or map. For instance, by giving roads, cycleways or footpaths their own landscape character or physical form, they will become memorable. At the intersection of these routes there will be strategic points be designed to be identifiable to the resident or visitor. The focus may be a roundabout or a street corner and its design should be unique in the layout of the village. Within the village there will also be landmarks which will be experienced from elsewhere in the area such as a clock tower, church spire or a stand of trees. Whatever the landmark it will be possible to single it out from the surrounding environment.

Legibility is further enhanced by creating a particular character to different parts of place. At White Court Garden Village it is proposed to create three hamlets within which the physical forms and landscape treatment will use these elements of legibility to create a sense of place.

Variety

Within established settlements land uses are mixed. Churches, schools, houses, open spaces, inns, work places, shops and other facilities are all combined to form the variety which is a community. Variety of experience points to places with different forms, uses and images. These qualities lead to other levels of variety in that variety of use leads to places with varied building types; it attracts varied people at varied times for a variety of purposes; and because of the different activities, building forms and people attracted to places in the village, a varied perceptual mix is created. People hold different images of the places they experience.

In seeking variety, the layout and design of the village must recognise that some uses cannot be located together because of noise or traffic generation. However, by careful detailed design, varied land uses, at an appropriate scale can be introduced into the village. Similarly, it is important that in the layout of the garden village the situation of mixed land uses is proposed on an economically viable basis.

3. THE SMALL LOT IN THE UNITED STATES

(i) Density by Design

In 1988 the American Institute of Architects and the Urban Land Institute produced a publication called Density by Design that catalogued the various forms that the detached single family home was taking as densities began to increase. The premise of the book is that even though densities may increase by a factor of four, the 'American Dream' of the detached single family house is far from extinct. The authors, James Wentling and Lloyd Bookout cite escalating land prices, changing demographics and lifestyles as the reasons for increased residential densities. These factors parallel the 'Australian Dream' of the quarter acre block. The affordability and demographic issues are also similar.

The premises of Density by Design are fundamentally different to those in the Essex Design Guide. Where the Essex Design Guide focuses attention on issues such as neighbourhood context and the character of an area Density By Design focuses on the individual house and its lot. By presenting 25 case studies it does recognize however that as lots get smaller ,good design is all important. Because Density By Design focuses on the individual house almost exclusively, issues such as the character of the suburb are not addressed.

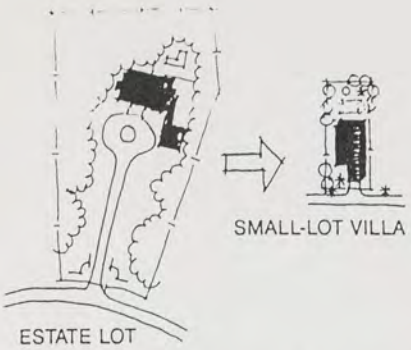
Like the Australian Green Street initiative , Density By Design is an attempt to portray the small lot in a positive light. In presenting each new house type the authors attempt to show that each has evolved from a traditional (and therefore acceptable) model.

The eight historical prototypes examined are,

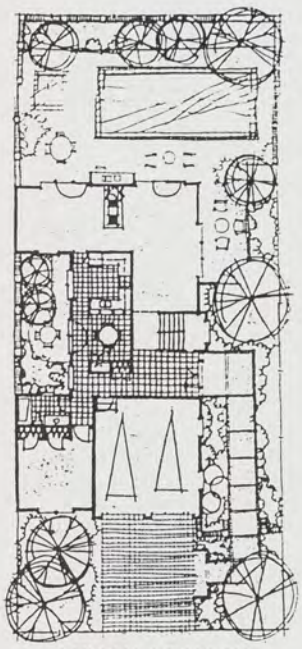
1) Estate homes,
2) Bungalows,
3) Cottages,
4) Duplexes,
5) Town Houses,
6) Breezeway Buildings,
7) Mid Rise Blocks,
8) High Rise Slab Buildings.

(Note that items 6, 7 and 8 are not addressed in this study).

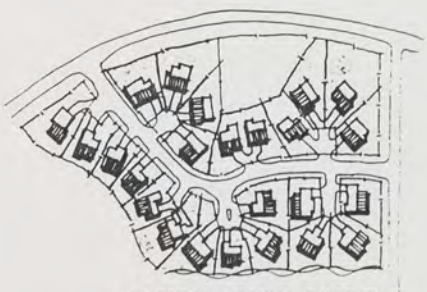
Wentling and Bookout argue that although some of these prototypes may not be suitable today in their traditional forms, certain qualities remain desirable. The case studies are grouped in these categories to demonstrate that the important traditional qualities can be maintained in the new small lot house types.



■ The image and quality found in historical estate houses can be replicated for today's wealthy buyers on lots less than 6,000 square feet.



■ Intensive landscaping and amenities such as a pool, a hot tub, and patios make maximum use of these small lots.



■ Versatility in lot design is a popular feature of the patio home. The small, square-shaped houses can work equally well on grid, cluster, or irregularly shaped lots.

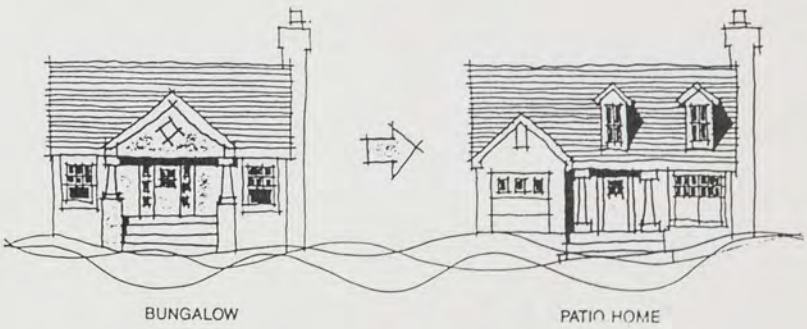
1) The Estate Home Prototype.

Small Lot Villas- "To market estate houses at higher densities, the image of luxury must be replicated at a smaller scale, particularly from the street.

In the small- lot villa prototype,... gates and a curved driveway to the portico can be reduced to fit on 50- 70 foot wide lots. Garage entrances are often perpendicular to the street or set back to the interior of the lot in order not to detract from the front door entrance. A two storey entrance facing the street will connote height, volume and value.

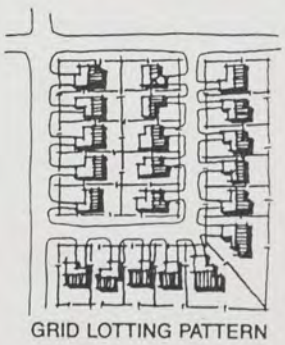
In terms of site planning, small-lot villas require efficient use of the lot. Rear yards may include a 20 foot by 40 foot pool with surrounding deck. The lot should be landscaped to give both shade and privacy without absorbing too much of the limited site area.

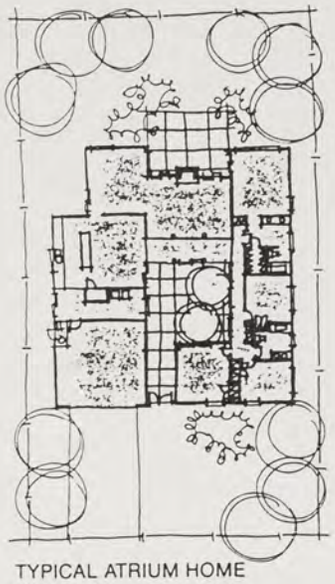
Market emphasis is on single-level living in small-lot villas. Because of space constraints, small lot villas are more likely to consolidate programmed room areas such as living/dining or kitchen/family spaces, which are formally separated in a traditional estate home."



2) The Bungalow Prototype

"The bungalow style evolved early in this century as a form of comfortable, affordable housing for the middle class. Often built in second-home or resort locations, bungalows had generous porch or deck areas extending off several elevations. Construction details reflected an unpretentious level of craftsmanship popular during the industrial era. Bungalows were most often single level in plan, with bedrooms or auxiliary spaces under dormer roofs on the second floor.





TYPICAL ATRIUM HOME
LOT PLAN

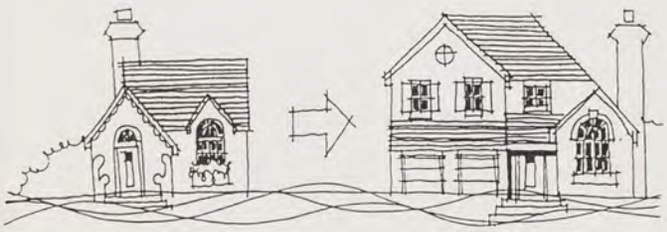
Atrium homes were sited on the lot so that the entire perimeter of the house had access to the outdoors. The central atrium became the archetype of the housing style.

The traditional bungalow offers an affordable model of comfortable living for what today is commonly known as the Patio Home. Simply stated, the design objective then and now is to use the outside deck as an extension of the limited interior space. Like the bungalows, the primary characteristics of the contemporary home include a single-level plan, easy access to outdoor areas, simplified construction and affordability. Modern patio homes are often sited on irregular lots to concentrate decks at one area within the lot.

Due to the popularity of double-car garages, wider lots with less depth are rapidly becoming more common. Interestingly, the wide lot was a characteristic of the traditional bungalow homesite.

A variation of the patio home that gained tremendous popularity in California during the 1950s was the "atrium home". Designed to have outdoor deck or patio access from most interior rooms, this housing type differed from the bungalow in that the exterior orientation was internalized within the lot. Atrium homes were often sited at densities of four to seven units per acre, depending on the interior programme. They were, with a few exceptions, built on one level so that all parts of the home were accessible to the outdoors.

Although seldom built today, the atrium home exhibits design qualities and solutions relevant to current higher-density requirements. Efficient use of land, an internalised design for maximised privacy, and plentiful access to light and air are elements that remain important both to developers and homebuyers."

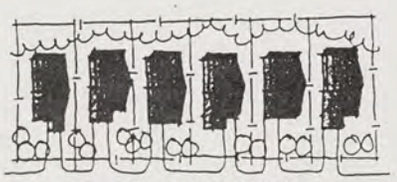


COTTAGE SMALL-LOT SINGLE

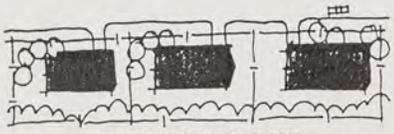
3) The Cottage Prototype

"The small detached home has always been a popular type of affordable housing. Testifying to this was the mail order component housing produced by Sears and shipped by rail to sites throughout the country from 1908 to 1940. Mass production techniques allowed custom detailing to be manufactured on a large scale at affordable prices. The 'cottage' style house was affordable to middle-income buyers. Although many cottages had single levels, full second floors were also common. In general, the cottage was designed for more diverse climates than the bungalow and therefore emphasised fewer outdoor porches and decks.

The contemporary Small-Lot Single retains the regional styling of the cottage's exterior while the interior has been greatly modified. Small-lot singles are generally planned for 5,000 to 10,000 square-foot lots with frontages varying from 45 to 75 feet. Unit sizes range from 900 to 1,500 square feet and may include two-car garages. Generally, these homes have traditional front/rear orientations with two small side yards used primarily to admit light into secondary rooms.

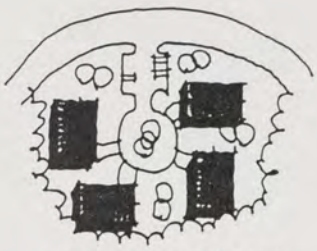


NARROW-LOT CONCEPT



WIDE-LOT CONCEPT

The wide-lot concept has been used to lessen the prominence of the garage and to improve the streetscape.



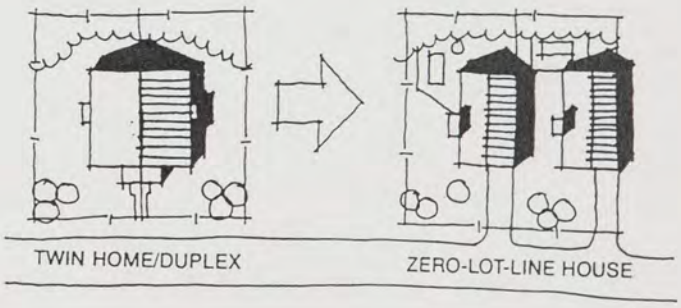
CLUSTER-LOT CONCEPT

The cluster arrangement has emerged as a popular lotting choice for the small-lot single because of the privacy, density, and sensitive treatment of the site that can be achieved.

Two-storey plans are more likely to be found in small single prototypes, where lot footprints are tight. In contrast to the single-level patio home, the small-lot single may be more internally focused, reflecting a less temperate climate.

Within the density range of Small-Lot Singles, the current debate centres around the Narrow-Lot versus the Wide-Lot choice. With the popularity of Narrow-Lot homes increased by Zero-Lot designs, which call for less front footage and therefore lower land costs, major concerns have arisen over the impact these designs will have on the streetscape. While admittedly the wide-frontage/narrow depth alternative loses some density and increases site improvement costs somewhat, the trade-off — an improved curb view of the home — may prove worth it. As a design choice, it is gaining momentum.

Cluster housing has emerged as a middle ground in the "lot size" debate by breaking the traditional street-to-house relationship. Organised around a court or cul-de-sac, detached homes can be spaced closely together while preserving unit individuality and privacy. Interior design of the units can be coordinated to alternate the orientations of the units and thus maintain privacy of outdoor spaces regardless of their proximity."

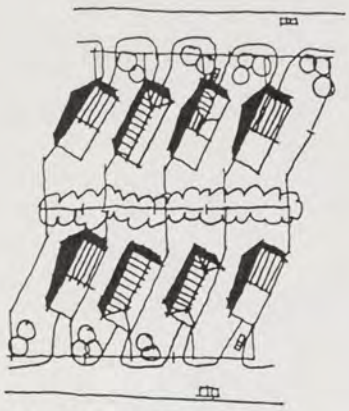


4) The Duplex Prototype (The Semi)

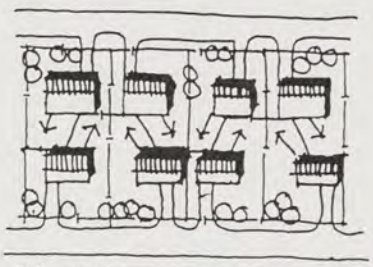
Twin houses or duplexes, generally were mirror images of each other with a common structural wall. Connecting two homes both economised on the cost of construction and increased the neighbourhood density. Duplexes still can be found in various forms and sizes, from rural farmhouses to fashionable streetcar subdivisions. Most often they were used as a type of affordable housing.

The twin home with its common party wall may well have inspired today's Zero-Lot—line housing. For the cost of one additional blank wall, these units assume the status of detached housing, which capitalises on a private side yard orientation.

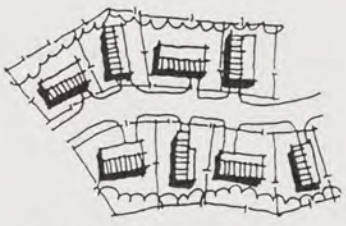
Like the duplex, Zero-Lot-line homes can achieve densities of seven to ten units per acre, with unit sizes that typically run from 1,000 to 2,000 square feet. Narrow lots, customarily 40 -to 50 feet in width, achieve the original objective of cutting frontage costs per lot. Lot depth varies with overall density.



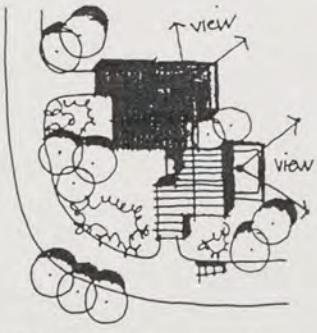
The Z-lot variation of the zero-lot-line concept is intended to reduce the negative visual effect of garage doors, thus enhancing the street appeal.



Zipper-lot houses are placed on wider lots. Typically, only garages are located on lot lines.



The alternate-width lot allows variety in the streetscape and in unit plans.



Separating the entrance of one house from the entrance to the adjacent house creates the image of a detached house.

Unlike the duplex, a contemporary Zero-Lot-line plan generally pulls the garage to the front of the home. Also, the narrow lot concept favours a linear plan that often requires a side entrance to the house. Resolving the garage-to-house ratio on the street level and providing a visible entrance to the house can be difficult.

With the increasing popularity of narrow zero-lot homes, the angled Z-lot concept evolved to lessen the impact of closely spaced homes on the street. Of particular concern was the eyesore produced by two-car garages on 50-foot-wide lots dominating the street scene. The Z-lot rotates the home 45 degrees from its traditional perpendicular relationship to the street front. This jogs the lot lines to suggest a Z configuration.

The Z-lot is being used to achieve densities of seven to ten units per acre, similar to standard Zero-Lot-line homes. Other benefits can include a reduction in the length of windowless walls, an increased perception of rear yard width, and an extended site distance line (through the house and into the rear yard) upon entering the front door.

Another recent variation of the Zero-Lot-line is the Zipper Lot. In this lotting approach, the rear lot line jogs back and forth to vary the depth of the rear yard and to concentrate usable space on the side of the lot. The other side of the lot is shallow and is located against the blank wall (usually a garage wall) of an adjacent house. With lot widths around 60 feet on the street frontage, zipper lots can minimise the visual impact of the garage on the streetscape. But because the lot pinches in at the rear and is fairly shallow, lot sizes can be kept to 3,000 square feet. Densities approaching 10 units per ac[illegible] are possible.

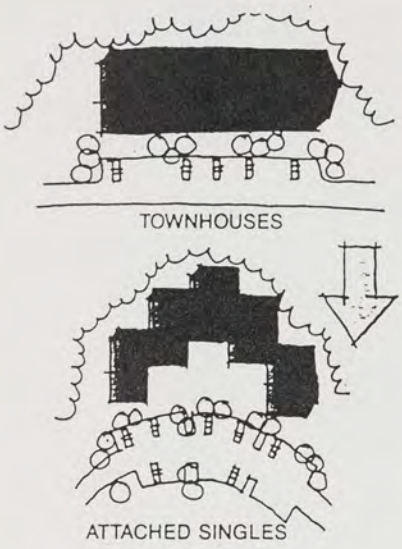
With alternate-width lots, Narrow and Wide lots are combined along a curvilinear street to offer a varied streetscape. The assortment of lot sizes also permits houses to be turned on the lots and thus can further vary the streetscape. As with most other small-lot, single-family detached programmes, alternate-width lots depend on site plans being highly integrated with unit floor plans."

5) The Town House Prototype

"For centuries the townhouse has provided affordable housing for urban dwellers. Within the efficient site layout allowed by grid street pattern, densities of 30 to 40 units per acre were commonplace. To re establish the townhouse concept in a non grid subdivision, however, the building form and site plan concept must be analysed anew.

The basically linear configuration of urban townhouses can be broken into 'attached singles' for suburban sites. The attached singles concept individualises units through a variety of techniques to establish an image of detached housing.

Attached singles are generally sited at a density of seven to ten units per acre, with units ranging in size from 900 to 1,800 square



Attached singles assume a less linear configuration than traditional townhouses while achieving a suburban density of 10 units per acre.

feet. There is an obvious trade-off between unit differentiation and density, whereby closely spaced linear buildings and parking can achieve densities of around 20 units per acre. Attached singles are especially suited to difficult sites where clustering and grade changes are often required.

A second popular descendant of the rowhouse is the Coach home, which combines interior townhouse units with stacked flats at the ends of the building. This building hybrid allows density to increase while maximising the open space exposure to four units at the ends of the building instead of the standard two units.

In both urban and suburban settings, linear townhouses can be organised in pairs to constitute new building types for increased density. Townhouses may be sited front-to-front or back-to-back to concentrate entrances along an open space.

The back-to-back grouping of open space is a variation of the urban prototype. The essence of urban townhomes is found in tight rear yards separated by screens for privacy. The concentration of front-to-front entryways may be more suitable to tight infill sites, where rear building areas are needed for automobile access and garage placements.

The townhouse mews concept has been successfully applied in both urban and suburban settings. Because relatively high densities can be achieved, the product works well on small urban infill parcels. It also works well on larger suburban parcels, where higher densities and attached garages are concurrent objectives.

(ii) Irvine, Orange County, California

The original Irvine range comprises some 100,000 acres and contains Newport Beach, Irvine, within Anaheim and Orange County. It is over four times the area of Milton Keynes, the largest English New Town.

It is seen by some in the United States as the most innovative example of Medium Density Housing where the escalating cost of land in California has resulted in the marketing of smaller lots. Unlike the examples in Essex, the emphasis is on the individual lot not on the entire development. With the money saved on smaller lots, people build larger houses. Developers have invested in a whole range of lot types, from the Zero lot (zee lot) to the Zipper lot, to maintain the image of the detached villa, as the homes come closer and closer to the boundary. Like the United Kingdom, a vernacular architecture is used. Like Milton Keynes, Irvine is a totally segregated and homogeneous city.

Interestingly, one area - 'Acropolis Aisle' which is a mixture of rental apartments, contains a series of pedestrian pathways to allow the tenants to park in common areas and walk to their apartments. These areas were one of the few places where any sense of neighbourhood could be discerned.

Detail information on a stepped Zero Lot house at Irvine .

SELF-GUIDED TOUR
Project Registration Form
"Designing for Higher Densities" Seminar

For each project you would like referenced in ULI's Self-Guided Tour materials to be distributed to seminar attendees, please complete a copy of this form and return it to ULI--the Urban Land Institute, Attn: Lloyd Bookout, 1090 Vermont Avenue N.W., Washington, D.C. 20005. Photocopy additional forms if needed. All forms must be recieved by OCTOBER 16th.

Project Name: PROMENADE

Product Type: SFD - Z-Lot Concept

Number of Units: 170 **Density:** 7.6 u/ac

Models Open: Yes _____ No X

Sq. Footage Range: 1361 - 2341 sq. ft.

Sales Price Range: $233,000 - 295,000

Special Project/Community Features: Side yards of 10 feet rather than typical 5 feet - entry impact, privacy, added light and openness - extensive use of glass and initial view across living area to patio for strong indoor/outdoor relationship

Builder Name/Phone Number: J.M. Peters Co., Inc. 714/854-2500

Architect Name/Phone Number: Richardson Nagy Martin 714/752-1800

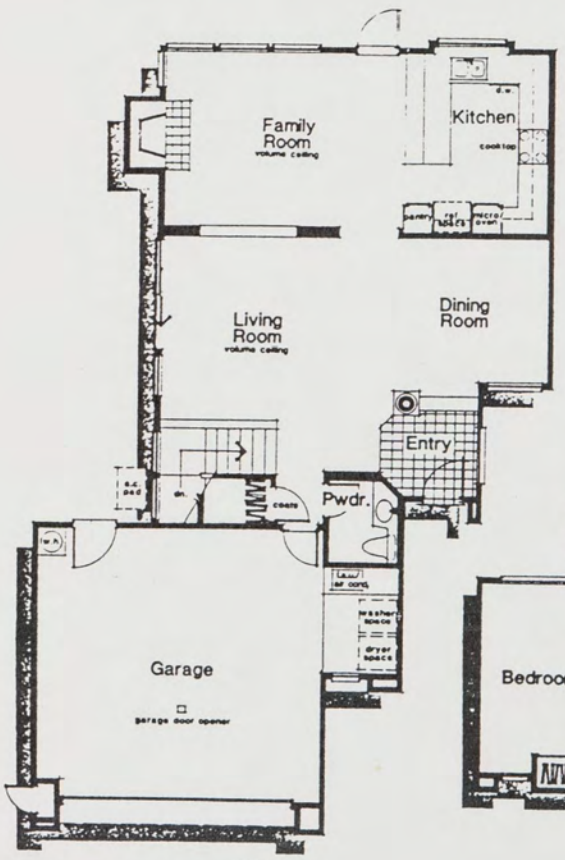
****NOTE:** **Please attach a map so that the project can be located on ULI's tour materials.**

Plan of a typical stepped Zero Lot house.

Plan 253

1,799 square feet

A striking two-story arrangement with gracious formal entry, volume ceilings, brightly windowed living room and adjacent formal dining area, spacious family room with wood-burning fireplace, gourmet kitchen, two secondary bedrooms, large master suite with dual walk-in closets and compartmented bath at the rear of the home, and attached two-car garage.



First floor

Second floor

The Zero Lot line house allows a detached house on a relatively small lot.

The repetition of small lot plans results in dull, uniform streetscapes without hierarchy.

Detail information on a Wide Shallow Lot house.

SELF-GUIDED TOUR
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Project Name: MARICOPA

Product Type: SFD - wide/shallow lot program

Number of Units: 100 **Density:** 7.0 u/ac

Models Open: Yes X No ____

Sq. Footage Range: 1924 - 3418 sq. ft.

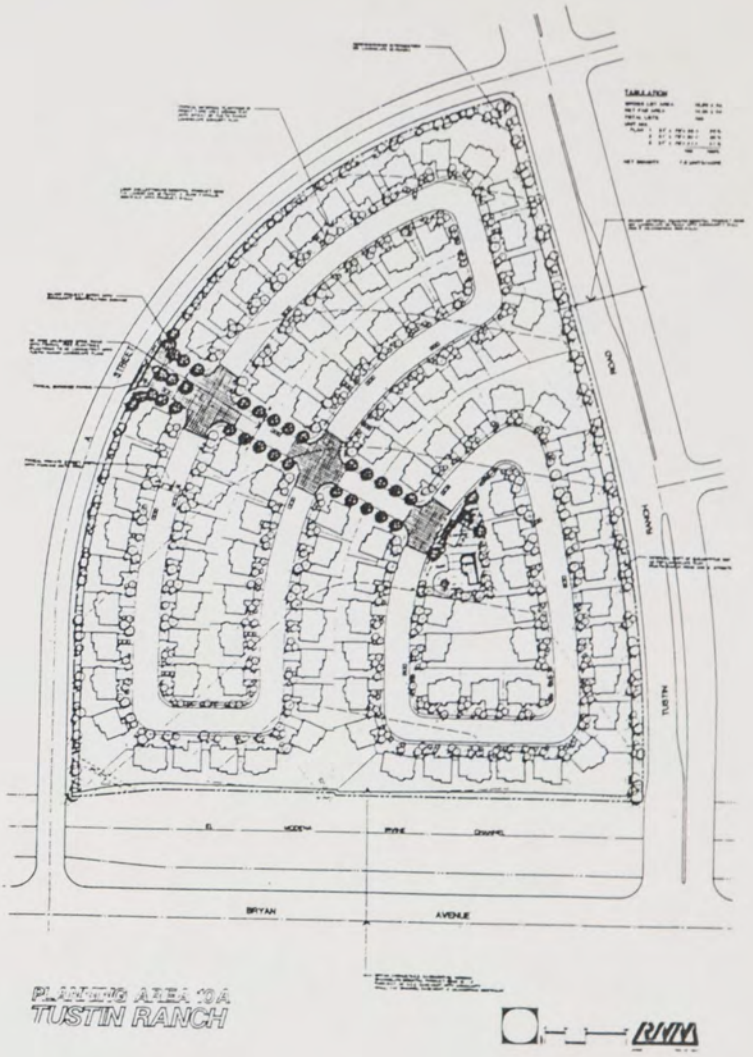
Sales Price Range: $329,990 - 383,990

Special Project/Community Features: Ample square footage and luxurious exteriors creating large single family look within framework of higher density master plan - two story open designs with separate dining rooms and kitchen/family room areas

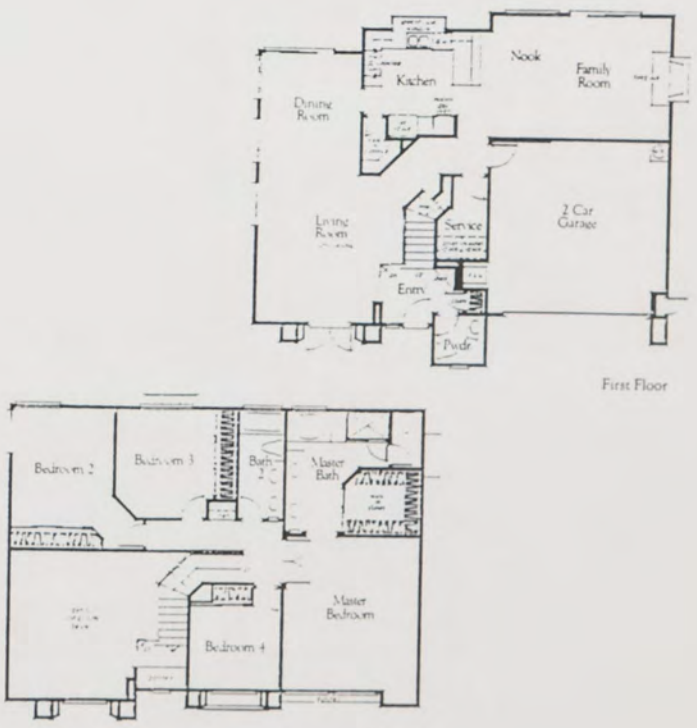
Builder Name/Phone Number: Bren Osgood 714/721-0220

Architect Name/Phone Number: Richardson Nagy Martin 714/752-1800

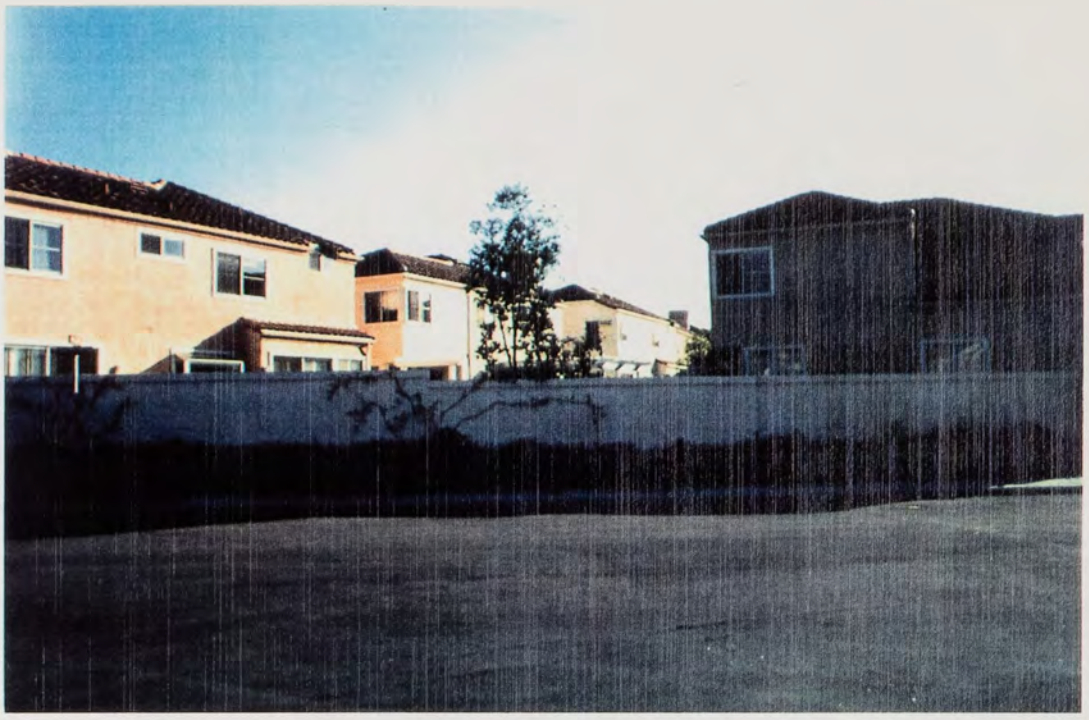
****NOTE: Please attach a map so that the project can be located on ULI's tour materials.**



Plan showing Wide Shallow Lot subdivisions.

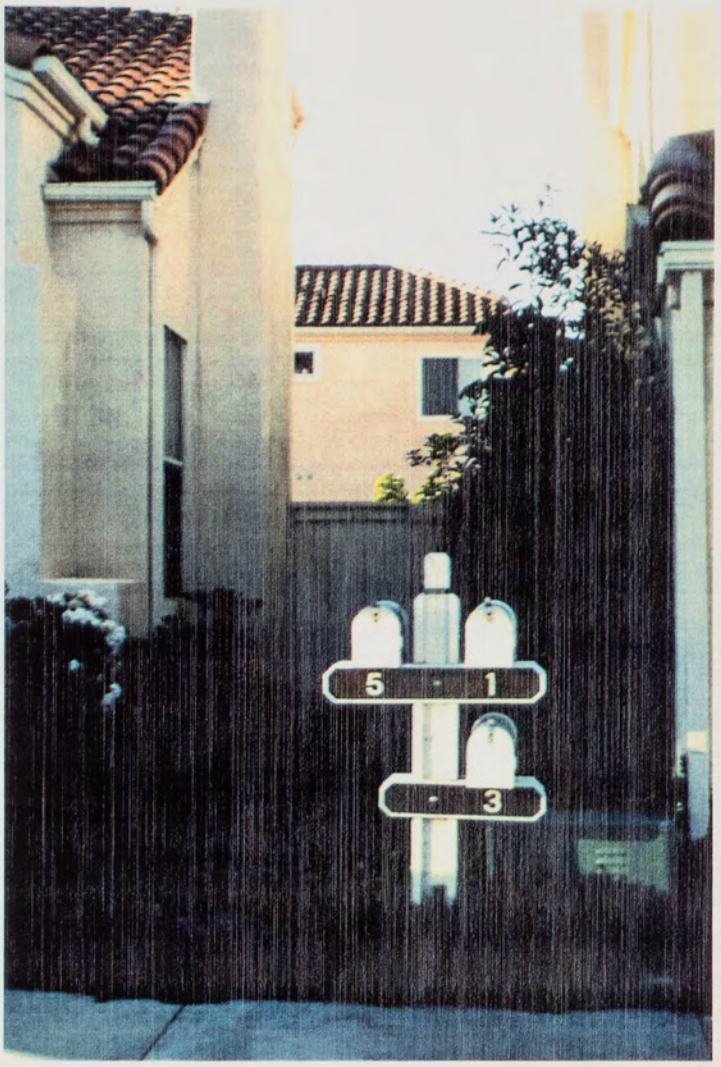


Plan of a typical Wide Shallow Lot house.



The wide lot results in houses overlooking abutting backyards.

The large houses on small lots generally have small rear yards.

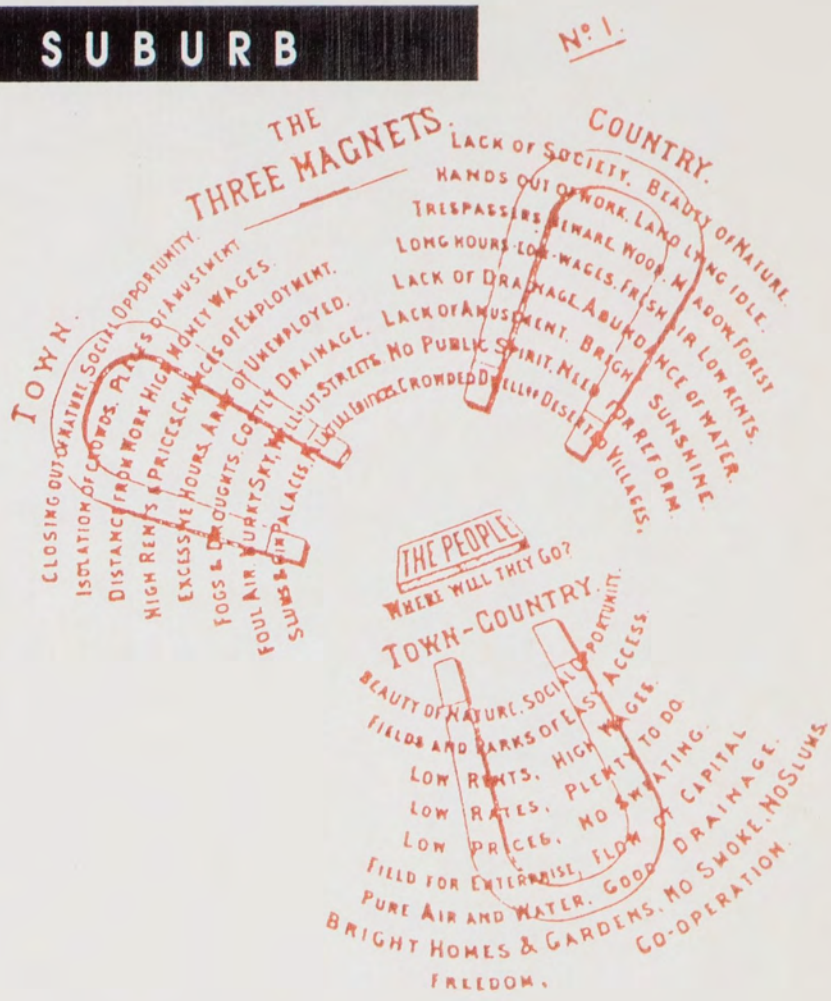


The wide shallow lot allows space between the detached wide houses. Generally the space is not useful.

Irvine also contains condominiums (apartments) grouped around courts.

Paths connect apartments to parking areas and provide an interesting pedestrian environment.

PART 4:
THE FUTURE OF
THE SUBURB



1. THE RE-EMERGENCE OF HISTORY - URBAN SUBURBS

(i) Conservation and history

Since the publication in 1966 of Robert Ventury's book Complexity and Contradiction in Architecture, architects have become far more aware of the importance of historical precedent. This coincided with a widespread interest in conservation that occurred initially in the large English and American cities where several historical centres were under threat of redevelopment.

With the increasing influence of the National Trust and preservation societies, governments have moved to protect items of heritage significance. An accompanying community awareness of the value of traditional environments has led to resident groups rejecting many of the modernist solutions to housing. Some architects such as Ralf Erskine and Charles Moore responded by working directly with the community. More recently, public figures such as Prince Charles have called for architects to re-examine the traditional community. This is occurring in both the United States and United Kingdom.

(ii) The Rise of Planned Communities in the United States (from the Real Estate Section,' New York Times', April 21, 1991)

The typical suburb consists of curvilinear streets and cul de sacs.

Approximately 30 planned communities have been started in the last decade. While Forest Hills Gardens in New York was an early example, there has been little progress with planned communities due to the fact that the large amount of open space required is scarce. Presently the Sterling Forest Corporation of California is planning to develop 17,000 acres to house 35,000 people in a cluster of five villages with employment for half of the wage-earning residents.

Many developers believe that the market will not support sprawling segregated suburban developments in the future. The preservation movement has very successfully popularised historic villages and towns to the extent that they are too expensive for most people. This is creating an opportunity for developers to create New Traditional towns.

Not only do planners want housing close to jobs, but real estate agents are finding increasingly that people will much more readily buy housing near a potential major employer. Conversely, major corporations are looking for sites near areas of affordable housing. In this way they can attract good employees. It was this rationale that created Bournville, Port Sunlight, and Pullman last century.

The situation is more acute in Orange County, California, where the average commute using the Los Angeles Basin's freeway is 1/2 hour each way.

At Rancho Santa Marguerita (50 miles south east of Los Angeles) 70% of the wage earners work in the community or within 10 miles of it. Subsidised housing for low income earners is part of the community, allowing a diverse income mix.

INTENT

TRADITIONAL NEIGHBORHOOD DEVELOPMENT (TND)

A. INTENT: It is the intent of the Traditional Neighborhood Developement section to implement Policies 1-o and 1-q of the Land Use Element of the Palm Beach County Comprehensive plan, that encourages mixed residential/commercial planned developement.

B. PURPOSE: The TND is designed to ensure the development of land along the lines of Traditional Neighborhoods. Its provisions adapt the urban conventions which were normal in the United States from colonial times until the 1940's.

1. Traditional Neighborhoods share the following conventions:

a. The Neighborhood is physically understood and limited in size.
b. Residences, shops, workplaces, and Civic Buildings are located in the Neighborhood, all in close proximity.
c. A hierarchy of Streets serve the needs of the pedestrian and the automobile equitably.
d. Physically defined Squares and Parks provide places for informal social activity and recreation.
e. Private buildings form a clear edge, delineating the Public Street space and the Block interior.
f. Civic Buildings and Squares reinforce the identity of the Neighborhood, becoming symbols of community identity and providing places of purposeful assembly for social, cultural and religious activities.

2. Traditional Neighborhoods pursue certain social objectives:

a. By bringing within walking distance most of the activities of daily living, including dwelling, shopping and working, the elderly and the young gain independence of movement.
b. By reducing the number and length of automobile trips, traffic congestion is minimized and road con-
c. By providing a full range of housing types and workplaces, age and economic class are integrated and the bonds of an authentic community are formed.
f. By providing suitable Civic Buildings democratic initiatives are encouraged and the balanced evolution of society is secured.

C. PROCEDURE: Applicants for the Mixed Residential/Commercial Developement option shall be required to follow the procedure for approval set forth in Sec. 500.21, Planned Unit Developement. Where the requirements of this section conflict with those of Sec. 500.21, this section shall prevail.

CONDITIONS

D. LOCATIONS & LIMITATIONS

1. The TND Option shall be available on lands designated on the Future Land Use Atlas of the Comprehensive Plan as Commercial Low-Intensity (CL) and Commercial High-Intensity (CH) with alternative residential densities. This TND will be allowed in the Neighborhood Commercial (CN) Community Commercial (CC) and the General Commercial (CG) Zoning Districts for the development of any land except land zoned A, B, & C.
2. The TND Option requires a minimum contiguous parcel of forty (40) acres and a maximum of two hundred (200) acres. Larger parcels shall be developed as multiple Neighborhoods each individually subject to the TND size limits and all other provisions.
3. A Property Owners Association, shall be formed to guide the growth and govern the citizens of the TND.
4. Land may not be removed from a TND. Land contiguous to an approved Neighborhood may be added to complete the maximum allowed Neighborhood area of two hundred (200) acres.
5. The TND Ordinance provisions shall be in addition to the provisions of the zoning districts in which the property is located. Where inconsistencies or conflicts exist between provisions of the TND Ordinance and provisions of the underlying zoning, the provisions of the TND Ordinance shall apply.

Excerpt from a Traditional Neighbourhood Development Ordinance by Duany and Plater-Zyberk.

(iii) Seaside, and the Traditional Neighbourhood Ordinance

In the late 1970s, Robert Davis, who owned 80 acres in Florida, decided to build a small town instead of a condominium subdivision. With Elizabeth Plater-Zyberk and Andres Duany, a masterplan and zoning code was established. The project is being built over a 15 year period.

The masterplan, consisting of a modified grid with a town centre, was laid out after a study of small Southern American towns was made. The planners concluded that an authentic town centre could not be established by a single architect. Thus, individual owners build within the Code elements such as front porches, white picket fences, painted wood sidings and wood shingles or metal roofing.

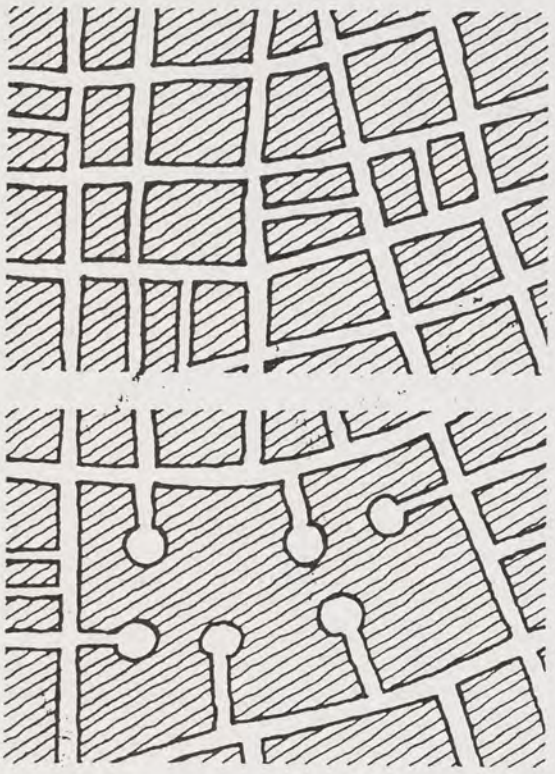
Duany and Plater-Zyberk argue that Suburban sprawl is not only the result of urban growth, but rather zoning and planning ordinances. Conventional lot subdivisions in the United States in the 1940s and 1940s are a result of codes that are projections of poor city models. Traditional neighbourhood patterns are not encouraged by current codes. Rather than re-educate planners and administrators, Duany and Plater-Zyberk believe that it is easier to change the actual ordinances as most planners prefer to follow rules (Duany, Plater-Zyberg, Chellman, "New Town Ordinances and Codes", Architectural Design, 1989).

Present codes dictate the following criteria:

1. free and rapid flow of traffic
2. parking in quantity
3. segregation of uses
4. low residential densities.

Their Traditional Neighbourhood Development (TND) Ordinance promotes independence from the automobile by mixing uses within the same neighbourhood. This mix creates an intimacy traditionally found in small towns.

(iv) Poundbury Development, Dorchester - a Vision of Britain

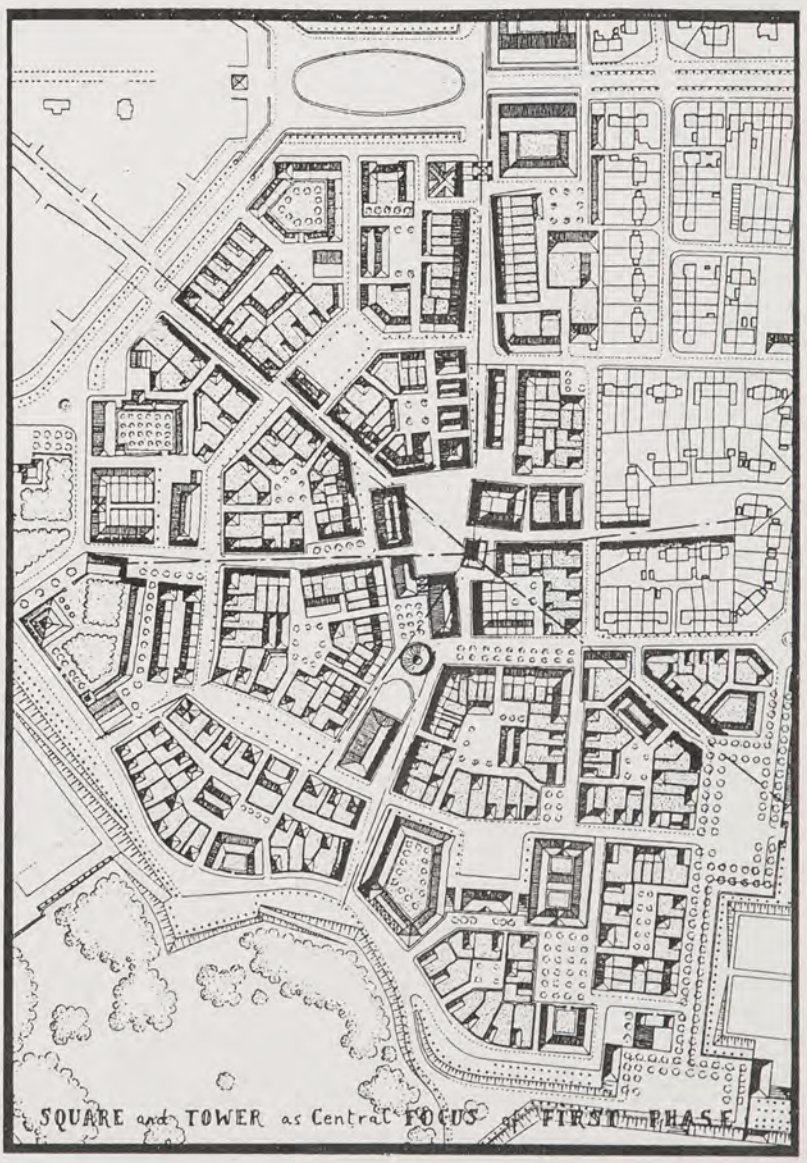


Figure/ Ground diagrams comparing the traditional grid (top) with the typical suburban cul de sac (bottom).

The existing area of Dorchester is 750 acres. The Duchy of Cornwall's Poundbury Development will add 450 acres to the town. Rather than add suburbs to the edge of the town, the Duchy of Cornwall approached Leon Krier to design a series of urban districts as well as integrating the existing community functions.

Each district is a conscious reinterpretation of a traditional Dorset village with traditional street patterns, building types and materials. Each district will contain education, employment, shopping and leisure facilities. Each sector will include 500-800 houses. Andres Duany will draft an Urban Building Code in accord with the intentions of the masterplan.

The notion of urban sectors is similar to the four quadrants that Unwin and Parker used to organise Letchworth. Rather than a Garden City, Krier is attempting to recreate the more antique medieval town.



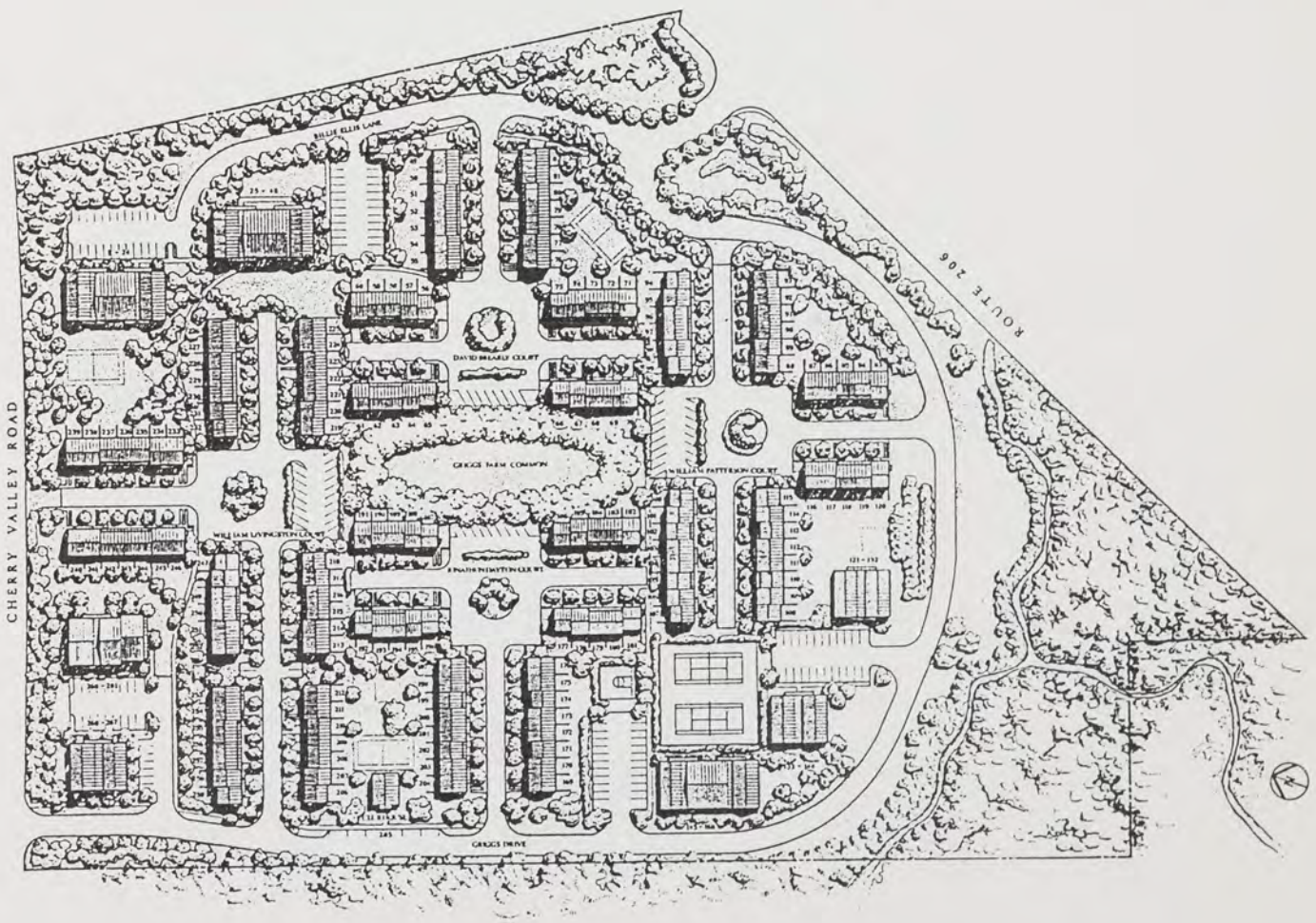
Plan of Poundbury, Dorchester.

Plan showing boundaries of existing and new urban quarters; each quarter being a small town. Local functions are located on the central local squares, the high streets which connect them, and the civic centres around Castlefields School and Poundbury Farm. The latter will contain leisure, culture, education and administrative activities which are of interest and use to the entire city of Dorchester and to the Dorset County as a whole.

(v) Griggs Farm, Princeton. By Geddes Brecher Qualls & Cunningham of Philadelphia , 1989

Griggs Farm has been designed to emulate the traditional small town sense of community. It also recognises contemporary issues such as private space and the motor car. Each household has a clear identity with front yard parking and a back yard garden. This basic module is connected together to form a court or mews. House entrances face towards each other generally. The squares are grouped together facing a central common. In addition to the common and squares, a series of pathways link the various elements.

The development was built by the Princeton Community Housing Inc., with a mix of 140 market rate units and 140 low/moderate income units. Ther e is no physical difference between the two.

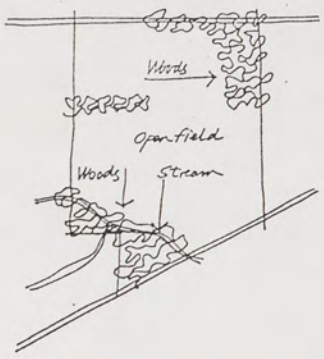


GRIGGS FARM Princeton Community Housing

Princeton Township, New Jersey

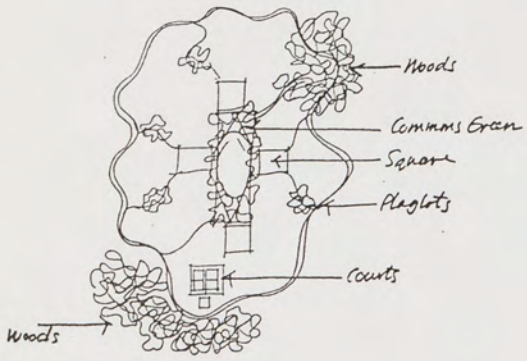
The following diagrams, prepared by the architects, identify the elements of the development:

The site.



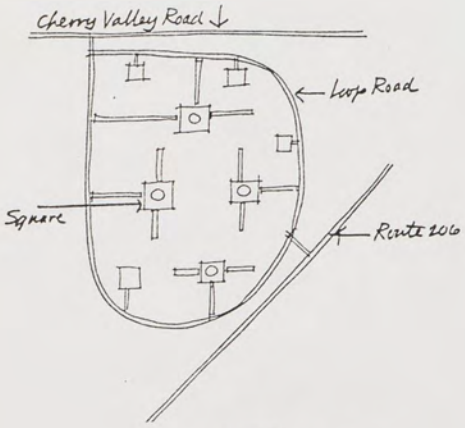
The existing site was largely flat and open. Existing wooded areas have been kept, as has a stream on the south west.

Open space.



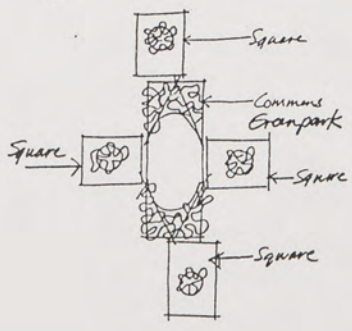
Four residential squares surround a common green. A pathway links the squares, recreation areas and remaining woods, without crossing a road.

The roadways.

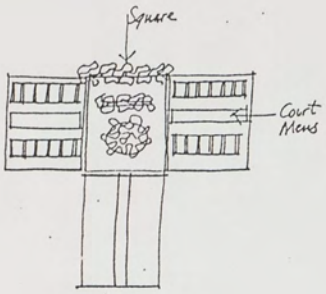


A loop road connects Griggs Farm to two surrounding major roads. The road provides access to the squares. Apartments are accessed directly off the loop road.

The common.

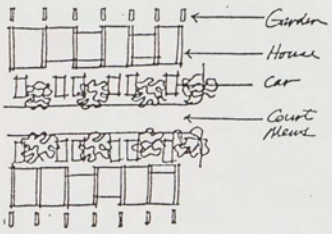


The common is accessible from all the squares and is a focal point for the development.



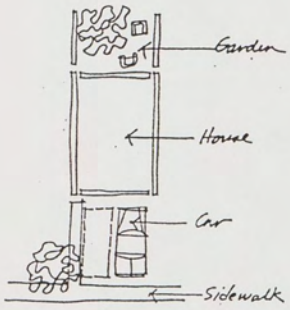
The square.

The square has a central landscaped island. The mews courts are grouped around the square. Additional parking is provided in the square.



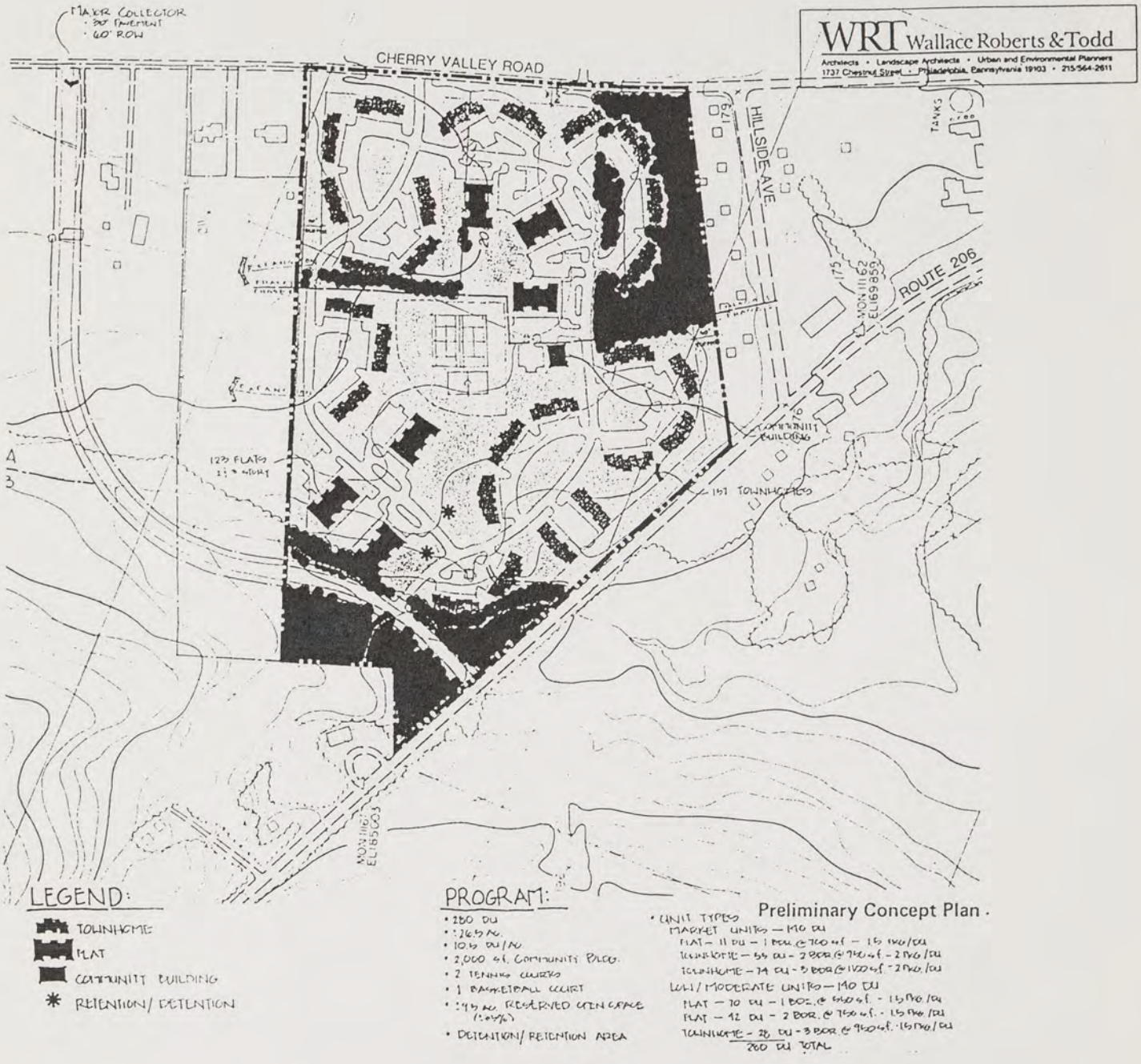
The mews court.

The mews court is created by two rows of houses facing each other. This is the basic community group. It is similar in scale to the Essex mews court examples examined earlier.



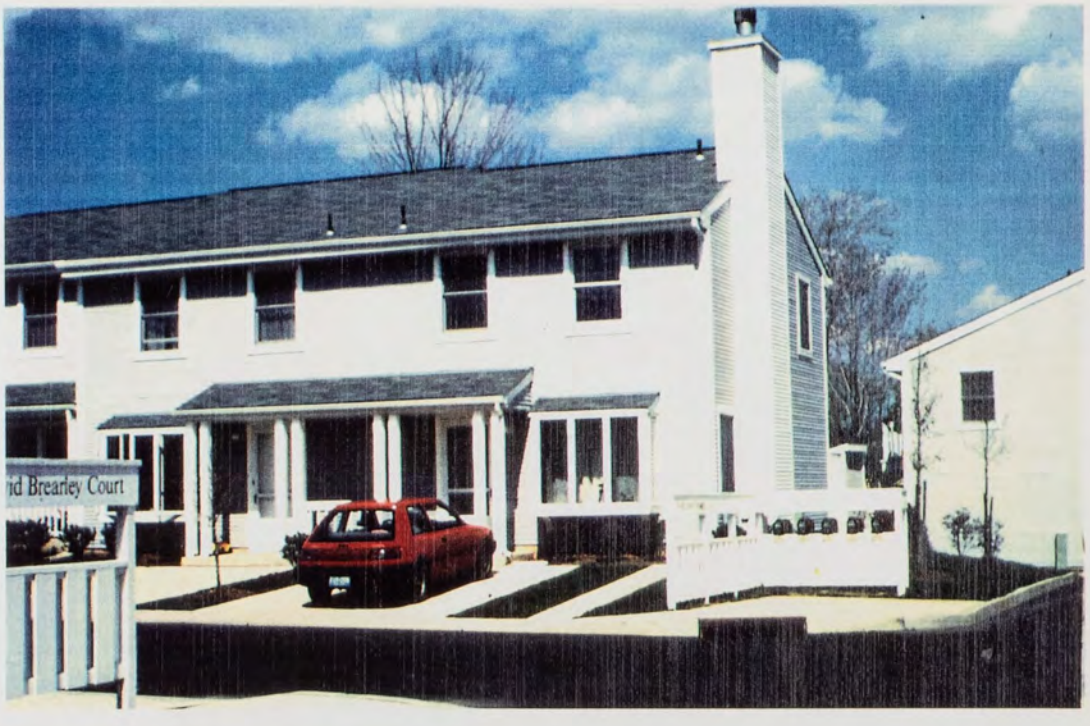
The house.

The typical house is six metres wide with a private rear garden and parking in the front. Larger units have provision for two cars. Each house has a street tree along the sidewalk.



Plan showing a previous scheme for Griggs Farm.

The mews courts are derived from The Hampstead Garden Suburb Cul-de-sac.



The houses are grouped into a series of up to eight attached units. Note that cars are not garaged, this may be a potential eye sore.

The housing at Griggs Farm attempts to combine the American Vernacular with Garden Suburb principles.

This development is focused around a large common. The landscaping at the time of the author's visit was incomplete.

Traditional elements such as bay windows and porches have been used on all of the units.

The interiors of the demonstration homes reflect what the developers believe that the home buyers want.

2. PEDESTRIAN POCKETS - A SUBURBAN PROJECT

In The Pedestrian Pocket Book (Princeton Architectural Press, 1989), Doug Kelbaugh acknowledges the work of Duany and Plater-Zyberk in publicising the traditional neighbourhood and its historical urban characteristics. Kelbaugh argues that what is needed rather, is a suburban typology - one that takes the low density/homogeneous sprawl that exists, and transform it into lively pedestrian units. For if there is one thing that most architects working on the suburban problem agree on, it is the need to reject the automobile centred suburb. The question is, how?

View of a common area.

In essence, a 'pedestrian pocket' consists of a cluster of housing, retail space and offices within a quarter mile radius of a transit system.

The four key elements are:

1. Low rise, high density housing
2. Mixed use main street
3. Light rail transit
4. Regional retail/commercial centre.

The Pedestrian Pocket combines land and transportation planning, housing and commerce within a short walking distance to a commuter rail station. In essence, the structure derives from railroad suburbs such as Riverside, Illinois and Forest Hills Gardens where the railway station was the core of the suburb. The difference with the pedestrian pocket is that a series of such developments would occur along a light rail route and people would commute between various pockets to work, shop or go to the theatre. The pockets would be inter-dependent.

Where the English Garden Cities and New Towns proposed populations of 30,000 to 300,000, Pedestrian Pockets propose populations of 5,000 with a work force of 3,000 in an area of 100 acres.

New Towns have been found to be too financially demanding for private developers. A 100 acre subdivision on the other hand is not uncommon for an office, park or shopping centre. The Local Authorities would be required to re-zone for a broad mix of uses within the transit area.

The Pedestrian Pocket recognises that the work force is shifting from manufacturing to the service and communications industries. There has been a great increase in the low density suburban office. This combined with Suburban sprawl has resulted in long inter-suburban commuter journeys with increasing delays. In this sense the Pedestrian Pocket is a post industrial suburb.

At present, San Francisco landscape architect Peter Calthorpe is designing two communities, Laguna West in Sacramento, California, and Lexington Park, Florida, along Pedestrian Pocket principles.

PART 5:
CONCLUSION-
REDESIGNING THE
AUSTRALIAN DREAM

"There are in reality not only, as is so commonly assumed, two alternatives - town life and country life - but a third alternative, in which all the advantages of the most energetic and active town life, with all the beauty and delight of the country, may be secured in perfect combination."

Ebenezer Howard, 1902

1. FROM UTOPIA TO THE DREAM HOME AND BACK AGAIN

The premise for this study is that the Australian Suburb in its present form is not capable of being successfully consolidated without the "Australian Dream" itself being re-designed.

What exactly is the "Australian Dream" ? As Gwendolyn Wright has noted in regard to the American Dream, *"The dream house is a uniquely American form because for the first time in history a civilization has created a utopian form based on the house rather than the city or nation."* This statement could also be applied to the Australian situation, where the emphasis is on the individual lot, not the suburb itself. Prior to the advent of the Australian and American 'dreams', the notion of a Utopia called to mind an ideal town. As early as 1516, Sir Thomas More's folio Utopia described an ideal town in terms of both government and physical layout. He described details such as the houses as *"far from unimpressive, for they take the form of terraces, facing one another and running the whole length of the street. Behind them is a large garden, ... completely enclosed by the back of other streets. Each house has a front door leading to the street and a back door to the garden"*.

This description is remarkably prophetic of the future suburb. What the the model suburbs of the nineteenth century such as Port Sunlight and Bournville had in common with More's Utopia was a desire to create a community which was more than just a sum of the parts. The examples of Dense Garden Suburbs shown here in Section 2.2 demonstrate this quite clearly. In addition to creating a community and public realm, these suburbs also created a strong identity and sense of place.

Section 2.3 of this report noted that the advent of the automobile made the New Town possible. In essence they were an attempt to emulate the qualities of the Garden Suburb on a vast scale. This was also their major problem. While Garden Suburbs such as Forest Hills Gardens in New York, Riverside in Illinois, and Hampstead Garden Suburb in London were all within walking distance of the railway station, New Towns such as Radburn, New Jersey, Harlow and Milton Keynes in Essex, were all designed to accommodate the individual motor car. Not only did the automobile provide an astonishing new sense of freedom and choice, it made the compact suburb redundant. The individual house in

dom and choice, it made the compact suburb redundant. The individual house in vast new tract developments such as Levittown, New Jersey became the Dream Home and self sufficient private realm. It was characterised by a sense of isolation from and indifference to its surrounds. What the Tract Home Suburb lacked in terms of community it tried to compensate for in the individual dwelling itself. It did not matter so much what was around the house (so long as it did not affect the amenity of that house), as much as what was within the individual lot. Suburbs ceased to be designed as cohesive entities with a hierarchy of public and private spaces.

It is only relatively recently that the factors mentioned in Section 1, such as the changing demographic structure of Western countries favouring smaller family groups and increasing singles, as well as the massive environmental problems caused by urban sprawl, are causing many to call for the re-introduction of the more compact suburb. Of course this is better known as the endlessly repeated phrase "Urban Consolidation". It has been the primary purpose of this study to examine overseas examples of suitable compact suburban models . Part 3, The Contemporary Suburb, and Part 4, The Future of the Suburb, conclude the study, looking at the various forms of compact suburban types occuring in the United Kingdom and United States at the present time.

It is important to realize that it was the overcrowding of vast urban centres such as London at the turn of this century, together with the advent of affordable mass transit that enabled the emerging middle classes to move out and create the Low Density Suburb. These factors have not changed significantly. There is no sudden desire for urbanity as hopefully proclaimed by some architects recently, but an increasing need to limit suburban sprawl for the reasons outlined above.

While the lack of cohesive design in the Low Density Mass Suburb to date has resulted in bland, characterless suburbs, they have been largely successful until now in the eyes of both the majority of the population and the politicians. They have been successful because there has been sufficient space to create a private world, cut off from its surrounds. If we continue to consolidate the Mass Suburb in its present form, the result will be bland denser suburbs with insufficient space to ignore what occurs outside the individual lot. This emphasis will have to change from focussing on the individual lot to the suburb as a whole if we are to successfully achieve a denser Australian suburb with a similar level of amenity.

2. SUBURBS OR SUBDIVISIONS ?

From the examples examined in this report it is possible to identify two types of suburb; the Designed Suburb, and the Mass Subdivision Suburb. It is striking how much more successful the early Designed Suburbs such as Forest Hills Gardens and Hampstead Garden Suburb are, in comparison with the Denser Mass Subdivision Suburbs such as Irvine[1], in coping with higher densities and maintaining variety and identity.

(i) The Designed Suburb

Early developments such as Bournville and Letchworth in the U.K.[2], and Riverside in the U.S.[3] , as well as contemporary examples such as Griggs Farm[4] and the Essex Examples[5] are designed as suburbs or communities and all contain the following key elements;

1. A central focus. In Riverside it is the railway station and civic area, in Letchworth it is the shopping area, and in Griggs Farm it is the central Common. Each focal area has a strong spatial quality.

2. Cohesive spaces. Houses are grouped to create a series of cohesive spaces. In Letchworth it is the residential Common, in Hampstead Garden Suburb it is the Cul de Sac . In Essex and Griggs Farm it is the Mews Court. Note that the cul de sacs in Hampstead have a strong spatial quality (refer to illustration on P.24) because the houses are arranged to enclose the space. This is in sharp contrast to the Mass Subdivision Suburb cul de sac where the scale of the road dominates the buildings around it.

3. Integrated with the landscape. Each development has been carefully integrated into the existing topography and landscape. In the case of Riverside the new landscaping and road layout exagerated the pattern of the existing Des Plaines River to counter the bland surrounding prairie. The new layout added to the existing natural features rather than destroying them. In Essex urban village characteristics such as the narrow Mews Court are used to create intimate urban spaces.

[1] Section 3.3(ii)
[2] Sections 2.2(ii) and (iii)
[3] Section 2.2(vi)
[4] Section 4.1(v)
[5] Section 3.2(iii)

4. Mixture of uses. Each Designed Suburb contains a mixture of housing types and income levels. There is also a mixture of uses from shops to civic functions and businesses. Riverside and Forest Hills Gardens group denser apartments around the central spaces creating a progression from an urban core to a more rural edge.

5. Special character. Consequently these characteristics gives each of the above mentioned suburbs a special character , identity and vitality while achieving relatively high densities. Ebenezer Howard's Garden Cities set out to achieve both the activity of the city and the beauty of the country . The Designed Suburbs achieve both of these things.

Unwin and Parker's plan for Letchworth, the first garden city, and drawings showing how the designers had translated Howard's radical social ideas into an utterly unthreatening environment.

Both Letchworth and Hampstead Garden Suburb are Designed Suburbs. Both examples;

-exploit the existing natural topography
-contain a central focus
-group houses around spaces such as commons or cul de sacs
-contain a mixture of building types
-have a recognizable character

The cul-de-sac, now a commonplace of suburban design, can be considered an innovation of Unwin and Parker's. Up to this time it had usually been associated with slum housing crammed into back lots, and it would require an act of Parliament to revise the bylaws in order to use the cul-de-sac at Hampstead Garden Suburb, as shown in the plan above.

(ii) The Low Density Mass Subdivision Suburb

In contrast to the Designed Suburb, the Low Density Mass Subdivision Suburb does not contain the previous five noted elements. Historically there are clear reasons for this.

As the emerging middle classes began to move out of the city at the turn of this century in the United States, developers, who had been formerly house builders, could not afford to pay for the increasing large numbers of virgin sites being demanded, subdivide them, service them, and build on them before selling . As a result, the real estate broker emerged, who would subdivide and service the land, selling off the lots to private home buyers who would then hire a builder. Speculative subdivision on a large scale was born. To efficiently sub-divide large numbers of sites the developers needed two things. Firstly co-ordinated and standard sized lots, roads and services, and then suburb wide covernants to protect the amenity of the area and maximize the lot price. Without this a speculator's subdivision could be unexpectedly de-valued if it was surrounded by inferior subdivisions with smaller lots or inadequate services etc...

To achieve co-ordinated subdivisions, the real estate brokers lobbied hard to initiate Government Zoning and Planning Ordinances. Thus government regulation of residential land was born and was initially orientated to maximizing the value of the individual lot.

The Low Density Mass Subdivision Suburb is characterized by;

1. Discreet precincts. Planning ordinances that zone densities and land usage in discreet precincts. Irvine and Harlow New Town are examples of this. The result is a lack of variety and activity, especially pedestrian.

2. Zoned Areas. Areas being zoned rather than being designed as spatial elements. The central areas of Milton Keynes and Harlow were 'designated' by the planners with no spatial concept or specific relationship to surrounding housing.

3. Individual lots. Housing that relates primarily to its own lot, with little regard to adjoining houses, apart from not adversely affecting the amenity of the neighbouring property.

4. Lack of identity. A lack of spatial elements such as commons or quadrangles that give neighbourhoods an identity, as well as giving denser forms of housing an outlook.

Irvine epitomizes this, with its identical streetscapes. While a density of aproximately 20 dwellings per hectare is achieved, the subdivision pattern is similar to the traditional Low Density Subdivision Suburbs. The lack of space on the individual lot is not compensated by a common space or a revised road layout. In fact as the lots shrink, the percentage of road increases.

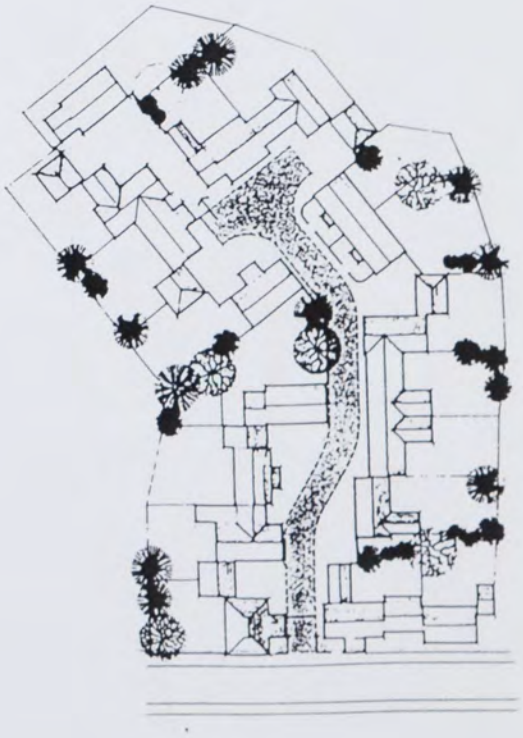
3. REGULATE SUBURBS NOT SUBDIVISIONS

As noted previously, the regulation of the suburb occurred as a response to a need for orderly mass subdivision of land into individual lots. Most residential regulations are still based on controlling individual lots to ensure that standard setbacks and building heights are maintained. Most current regulations are negative in that they prescribe what is not allowed.

In spite of all the efforts of planners, the contemporary suburb is a less memorable and interesting place to be than at the turn of this century. This view is vindicated by the strong heritage and 'Main Street' programs that encourage the maintenance of older precincts. How can regulations help to create livable suburbs as densities increase? Section 3.2 looked in detail at the Essex Design Guide. It is one of the few codes that actually addresses the issue of design. The code looks at several areas;

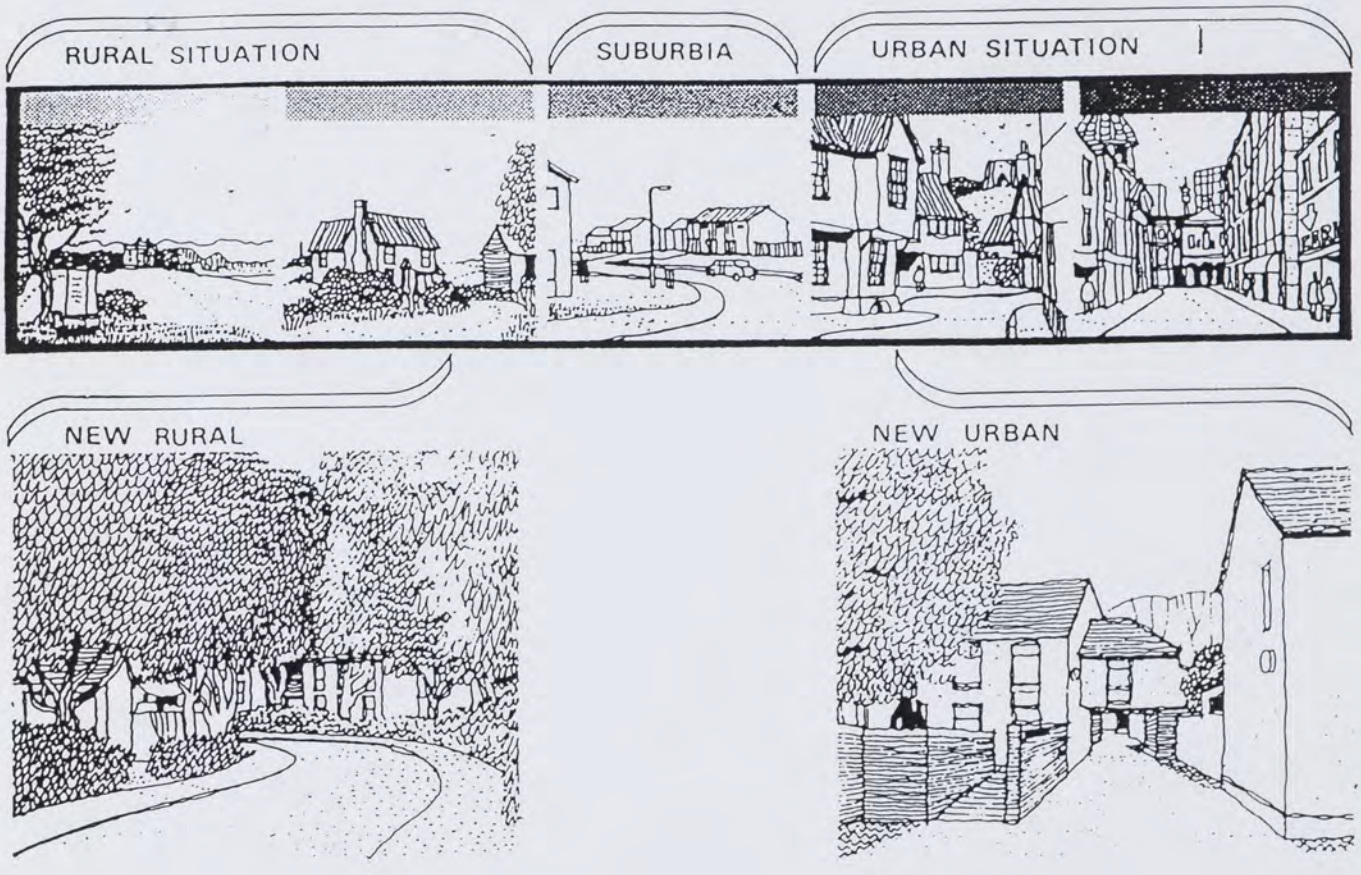
1. Revised Highway Codes

These allow smaller roads and shared carriageways. The automobile is not given first priority. The shared carriage way makes it possible to design a more compact suburban form without shrinking the individual lot.



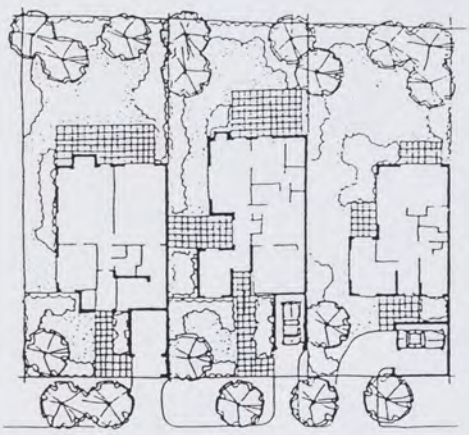
2. Design Principles

These recognize suburban spatial types existing in Essex and explain how they are achieved using two suburban forms, one 'rural' where landscape defines the spaces, and the other 'urban' where buildings define spaces. The traditional suburban type where neither landscape or buildings define spaces are not permitted in any areas.. Simple case studies showing good and bad examples are also shown.



Trellis and landscaping can be provided by neighbours to enhance privacy.

IMPROVED SITING



This diagram from the Australian Model Residential Code (AMCORD) illustrates the INDIVIDUAL LOT APPROACH. The key elements of the Designed Suburb are absent.

This plan, the result of a workshop held in Melbourne by Wendy Morris of the Victorian Ministery of Planning and Paul Murrain of the Oxford Polytechnic in 1990 contains many of the elements of a DESIGNED SUBURB.

4. LESSONS TO BE LEARNT IN AUSTRALIA

1. Don't consolidate the Australian Suburb in its present form of unrelated quarter acre lots. Denser Australian Suburbs need to be designed as suburbs not just subdivided into a series of individual lots.

2. Don't continue to regulate the individual lot in isolation. Masterplanning issues must be addressed by Australian codes. The Essex Design Guide could provide a useful demonstration of principles for Australian codes because it is one of the few codes that addresses masterplanning issues. But its codes cannot simply be copied.

3. Suburban roads must be re-thought, scaled down, and shared with the pedestrian.

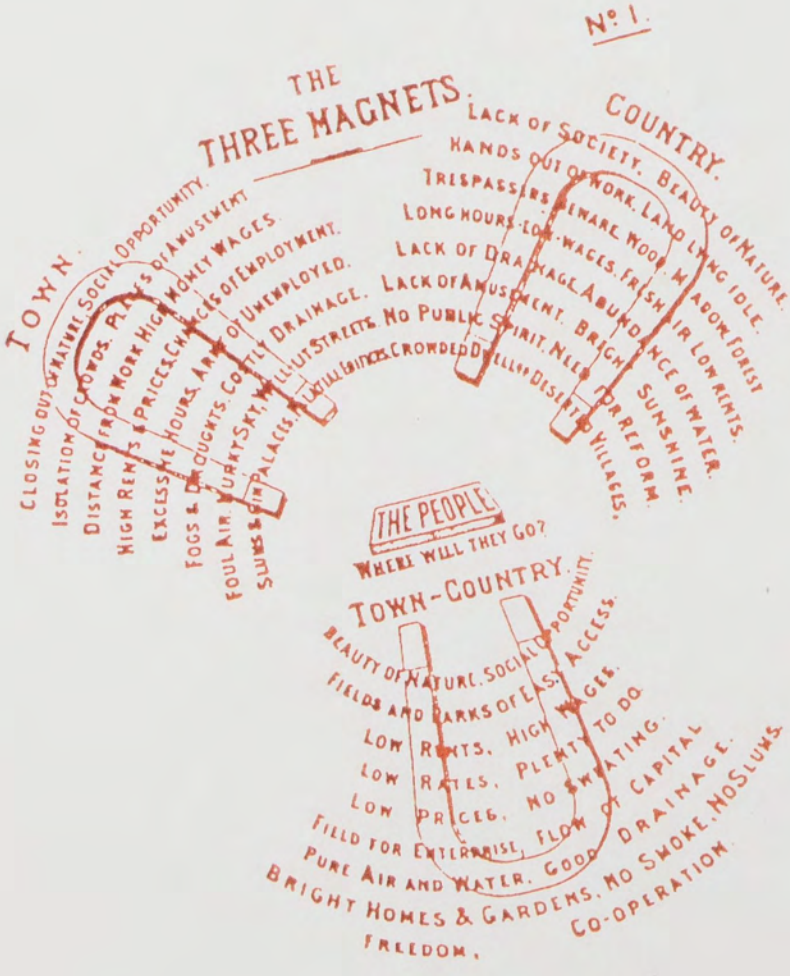
4. Re introduce the public realm. Suburbs containing smaller lots will require a hierarchy of public and semi-private spaces.

5. Provide Denser Suburbs which contain a mixture of building types ranging from the apartment to the detached house, as well as amixture of compatible uses to achieve real choice and variety

6. The Australian Dream need not be destroyed with a smaller individual lot. The occupants of Denser Australian Suburbs areentitled to nothing less that a Re-designed Australian Dream.

PART 6:

APPENDICES



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2. RECORD OF INTERVIEWS AND MEETINGS

AUSTRALIA

27 July 1990	Meeting at South Sydney Council with Planning Officers Craig Bagley and Nick Horiatopolis
31 August 1990	Meeting at the NSW Department of Planning with Jan McCredie, the Green Street Promoter
8 October 1990	Meeting at the NSW Department of Housing with Mark Singer the Manager of the Design Branch (currently Manager of Building Standards)
23 November 1990	Meeting at the Victorian Ministry of Housing and Construction with Bill Barlow, Group Manager of New Housing
23 November 1990	Meeting at the Victorian Ministry of Planning and Urban Growth with Paul Goldstone of the Urban Design Unit
26 November 1990	'Housing Consolidation Task Force' internal seminar at the Victorian Ministry of Planning and Urban Growth

UNITED KINGDOM

27 March 1991	Meeting at Clapham Common, London with Patricia Tindale, Chairperson of the RIBA Good Housing Awards
27 March 1991	Meeting at Mill House Studio, Surrey with Ivor Cunningham of Eric Lyons Cunningham Metcalfe Architects
28 March 1991	Meeting at the National Housing and Town Planning Council, London with Martin Daley, Research Officer
3 April 1991	Meeting at Ingatestone Hall, Essex with Anne Cooper and David Ruffle of David Ruffle Architects

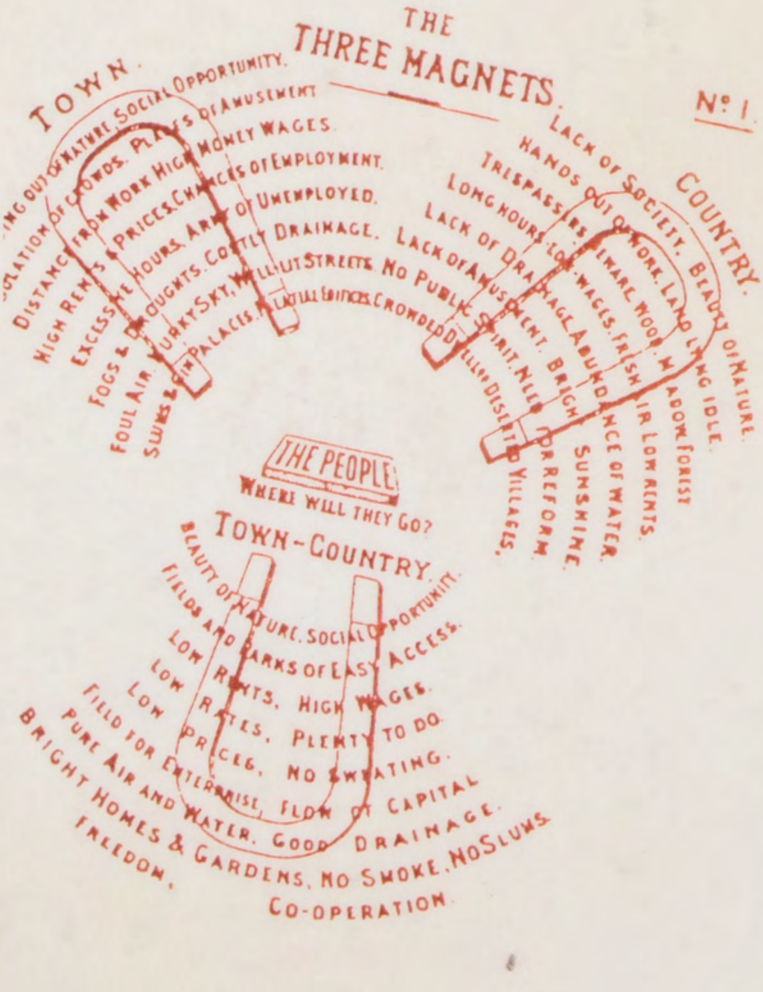
3 April 1991	Meeting at Countryside Properties PLC. Essex with Patricia Gupta, Chief Architect
4 April 1991	Driving tour of South London housing with Patricia Tindale

CANADA

16 April 1991	Meeting at the Canada Mortgage and Housing Corporation, Toronto with Wazir Dayal
17 April 1991	Meeting at the Perez-Bramalea Corporation, Ottawa with Graham Bird, Vice President
18 April 1991	Meeting at Hobin Architects, Ottawa with Gordon Lorrimer and Barry Hobin

UNITED STATES

24 April 1991	Meeting at Hanna/Olin Landscape Architects, Philadelphia with Bob Bidell and Rohan Dickson
24 April 1991	Meeting at Wentling Architects, Philadelphia with James Wentling
25 April 1991	Meeting at Geddes Brecher Quails and Cunningham Architects, Princeton with Neville Epstein and William Dix
26 April 1991	Meeting at the Urban Land Institute, Washington with Lloyd Bookout, Research Officer
26/27 April 1991	Washington Roundtable talks sponsored by the City Administration and the AIA, between City officials, National legislators, Housing and Resident Groups, to determine future policy



THE
THREE MAGNETS.
Nº 1.
TOWN.
HIGH MONEY WAGES.
CHANCES OF EMPLOYMENT.
ARMY OF UNEMPLOYED.
COSTLY DRAINAGE.
FOGS & DROUGHTS.
FOUL AIR.
COUNTRY.
LACK OF SOCIETY.
HANDS OUT OF WORK. LAND LYING IDLE.
TRESPASSERS
LACK OF DRAINAGE. ABUNDANCE OF WATER.
LACK OF AMUSEMENT. BRIGHT SUNSHINE.
VILLAGES.
THE PEOPLE:
WHERE WILL THEY GO?
TOWN-COUNTRY.
BEAUTY OF NATURE. SOCIAL OPPORTUNITY.
FIELDS AND PARKS OF EASY ACCESS.
LOW RENTS. HIGH WAGES.
LOW RATES. PLENTY TO DO.
LOW PRICES. NO SWEATING.
FIELD FOR ENTERPRISE, FLOW OF CAPITAL
PURE AIR AND WATER. GOOD DRAINAGE.
BRIGHT HOMES & GARDENS, NO SMOKE, NO SLUMS.
FREEDOM.
CO-OPERATION