

PUBLIC POLICY AND THE PRIVATE GARDEN

An analysis of the effect of Government policy on private
garden provision in England and Wales 1918-81

A thesis submitted in partial fulfilment of the requirements
of CNAAB for the Degree of Doctor of Philosophy.

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ABSTRACT

The prevalence of dwellings provided with private gardens is a feature which is often commented upon by visitors to England and Wales. Indeed the garden has almost come to be regarded as a national characteristic of the English. In fact the majority of dwellings in England and Wales possess private gardens, though the size and distribution of these varies both as a result of locational, sectoral and tenurial differences. This high level of private garden provision contrasts with the situation in most of Continental Europe.

This thesis therefore explores the possible explanations for this phenomenon, but more pertinently, considers the hypothesis that Government, both at the Central and Local level, has shown consistent support for the private garden over the period 1918-81. To this end the text is divided into three Sections. The first considers the importance of the garden in modern society, both in cultural, psychological, functional and quantitative terms. The second examines the history of Central Government policy, focussing on political and professional attitudes to housing and garden provision, over the period 1918-81. The third Section examines current Central and Local Government policy by means of a sample survey of eighty Local Authority District Councils.

Each Section of the thesis is complete in itself and includes both a separate introduction and conclusion. General conclusions covering the whole thesis appear immediately after Section Three.

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Finally, I would like to dedicate the thesis to my mother and to my wife, Sheila.

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"Through momentous social, economic and political changes in the last century and a half the individual house in a garden has survived as the ideal of the majority of English people - more spacious, lighter, warmer, better fitted and equipped than its ancestor, but in essentials unchanged."

John Burnett - A Social History of Housing 1815-1970,
1978, David & Charles p 313

INTRODUCTION

The English garden figures prominently in the popular imagination. Thus as early as the sixteenth century Francis Bacon wrote in his essay Of Gardens:

"God Almighty first planted the garden and indeed it is the purest of human pleasures..." (1)

The image of the garden is both romantic and symbolic. It has been viewed as an earthly expression of paradise, whether the work of God or man, and the antithesis of urbanisation. When the seventeenth century metaphysical poet Abraham Cowley wrote:

"God the first garden made and the first city Cain" (2)

and wished:

"Ah yet e'er I descent to th' grave
May I a small house and large garden have." (3)

he anticipated themes adopted later by nineteenth century humanists and social reformers. William Morris for example in his prologue to The Earthly Paradise wrote:

"Forget the spreading of the hideous town
Think rather of the packhorse on the down
And dream of London small and white and clear,
The clear Thames bordered by its gardens green." (4)

cogently expressing ideas which were readily interpreted in the garden city movement of the early twentieth century.

The garden is also commonly adopted as a symbol of England and the English. Rudyard Kipling's The Glory of the Garden epitomised this association with:

"Our England is a garden, that is full of stately views
Of borders, beds and shrubberies and lawns and avenues." (5)

Even in the more material culture of the late twentieth century this image is perpetuated in the popular rendition of "In an English Country Garden".

But perhaps the most telling expression of the apparent popularity of the garden in the minds of millions is the continuing flight to the suburbs during this century.* Whilst it would be naive to assume that the scale of this movement solely reflects popular demand for garden space, sociological research suggests a close association between the image of the garden and the image of suburbia in the popular imagination. Thus Wilmott and Young in developing a profile of suburbia out of their empirical study of Woodford suggest:

"In Bethnal Green homes and factories are packed tight and surrounded with asphalt, whereas in Woodford the houses are spaced out at intervals and surrounded by grass.....the disadvantage of civilisation is evidently industry, while the advantages are the cultivated trees and flowers, the garages and the Tudor half-timbering which the modern economy makes possible." (6)

More recently the British sociologist, David Thorns, has commented:

"One leisure activity which comes under the general heading of recreation which has been strongly associated with the suburbs is gardening. This activity is seen as part of the 'keeping up with the Joneses' status theme of suburban living." (7)

Similarly, the architect J M Richards, in Anatomy of Suburbia, sees the

"...suburban residence and the garden which is an integral part of it"

as the epitome of the Englishman's home. (8) Comparison with other developed Western nations shows that Britain has the highest proportion, at 78% of the housing stock, of dwellings built in single-family form.

* Suburban expansion has been the notable feature of housing development since the inter-war period. Indeed during this period it achieved its highest rate to date. Berry F - Housing: The Great British Failure, 1974 Charles Knight p 126 points out that between the wars 2.88 million dwellings were built for sale, an average of 144,000 per year, though the majority were probably constructed in the 1930s. Almost all of this building took the form of suburban expansion. See 2.3. Suburbanisation has continued, though at a reduced rate, ever since.

The USA is a close second with 76%, Belgium has 70%, Holland 56%, West Germany 49% and France 32%. (9) This evident British preference for the single-family house as opposed to the tenement or flat, no less than the desire for a suburban lifestyle, has doubtless made a major contribution to the success of the garden in England and Wales. Despite suggestions that Continental Europeans are now opting for single-family units as opposed to tenements, and thus implicitly expressing a desire for a garden, the high level of provision of single-family dwellings in England and Wales suggests a strong cultural tradition supported by successive Governmental initiatives, in marked contrast to the historic situation in other European countries.

i) Aims of the Research

The aim of this research therefore, leaving literary imagery and allusion aside, is to test the validity of this latter assertion in respect of England and Wales. The intention is to determine whether public policy has deliberately encouraged the large scale development of single-family houses with gardens, and what, if any, have been the relevant factors in the realisation of the current distribution of dwellings with gardens, both spatially and between sectors. More precisely the approach to this problem examines:

- a) the historic, functional, sociological and psychological importance of the private garden;
- b) the history of Central Government policy since 1918, where this impinges on the issue of private garden provision;
- c) current Central Government policy and the policies and attitudes of a sample of Local Authorities.

With reference to c) above the research seeks to:

- a) assess whether current official attitudes to the garden differ from those isolated in the historical analysis;
and
- b) determine whether the attitudes of Local Authorities, as implementors of national policy and formulators of local policy, differ significantly from each other and from those of Central Government.

ii) Definitions and Terms of Reference

In order to avoid confusion and ambiguity the major terms used in the title of the thesis, Public Policy and the Private Garden, are discussed below. Included in the definition of Public Policy are both those Governmental initiatives which have been specifically aimed at influencing the level and standard of private garden provision and those which might have an indirect impact on private gardens. The focus is particularly upon the housing and town planning functions of Government since it is in these spheres that opportunities for intervention in private garden provision are most likely to arise. Government intervention in the residential environment takes the form of direct involvement in house building; fiscal policies, which apply, albeit differentially, to both public and private housing sectors; and control of development under the Town and Country Planning Acts.

The investigation embraces the activities of both Central and Local Government. Although some commentators have seen Local Government merely as the agent of Central Government, others

have identified a more independent role.* As an initial premise this thesis accepts some degree of local autonomy whilst recognising the powerful potential for control over local action, which Central Government possesses, and which may encourage many Local Authorities to adhere fairly closely to Central Government advice. The situation in respect of garden provision is examined in some detail in Section Three of the thesis.

The Private Garden is defined as an area of land which is:

- a) attached to one or more sides of a dwelling;
- b) private in that it is divided by some means, eg hedges, walls or fences, from public roads and pathways and from other similar plots;
- c) situated in such a way that it provides access to the dwelling to which it is attached.

It must be understood however that this definition cannot cover all eventualities. In Sheffield for example, many terraced dwellings built in the nineteenth century were provided with communal rear yards serving three or four houses and affording shared access to all those dwellings. Later builders, who provided rear gardens with terraced houses, often copied this layout plan. Thus whilst the dwellings were provided with gardens, which were usually divided up by the occupiers and fenced off into plots, the gardens which this layout design

* An early exposition of the agency view of Local Government, can be found in Robson W - 'The Central Domination of Local Government', Political Quarterly Vol 4 No 1, 1933. A thorough empirical investigation of the independence theory as applied to Local Government in England and Wales appears in Boaden - Urban Policy Making, 1971, Cambridge University Press, passim. Both perspectives are cogently reviewed in Stanier J - Understanding Local Government, 1976. Fontana, pp 211-233.

produced, do not strictly conform to the definition given above, because of the communal access rights enjoyed by the occupiers of each group of houses. Further examples which escape this definition are discussed in 1.3. Employing the definition given above, however, the private garden can be distinguished from the allotment garden, which is separate from the dwelling, and from all forms of open space to which the general public has an automatic right of access. Although most pieces of ground falling within the definition are cultivable, reference to the single function of cultivation has been deliberately avoided, despite being a characteristic of most dictionary definitions. For example the Oxford English Dictionary defines a private garden as:

"An enclosed piece of ground devoted to the cultivation of flowers, fruit or vegetables..."

and Larousse defines the garden as:

"a piece of ground where flowers, fruit and vegetables are grown, usually near a house"

Whilst, as the study will show, this association is important to both popular and official perceptions of the garden, cultivation is neither a necessary nor universal function. Nevertheless the use of the term 'garden' is preferred to more ambiguous phrases such as 'private open space' or 'private outdoor space' which, as well as being misleading to the general reader, have no clear association with the dwelling.

The study focuses on public policy since 1918, although the first Section in particular looks back further in order to evaluate the historical importance of the garden in English society. 1918 was chosen as a starting date since it

represents the beginning of a new era in Government. With the return to peacetime concerns following the cataclysm of the first World War, Central Government began to concern itself for the first time on a large scale, with the provision of housing, and the first housing subsidy to Local Authorities was made available as a result of the Housing, Town Planning, Etc Act, 1919. The establishment of near universal manhood suffrage, (virtually all men over twenty-one and women over thirty were enfranchised by the Representation of the People Act, 1918) also suggests that henceforth Governments would need to be fully responsive to the needs of all households, in order to maintain their parliamentary majorities. As an illustration of this new responsiveness the call for "Homes fit for Heroes" was successful in producing both legislation to facilitate the building of dwellings for the working classes, and a major publication on the design requirements of such housing, the Tudor Walters Report. 1981 marks the end of the study period, although it should be noted that survey work has continued throughout the period of the research, 1978-81.

The area of study is confined to England and Wales, but where for the sake of brevity 'England' or 'English' is discussed, at the risk of offending Welsh patriots, this should be taken to include Wales as well. The choice of England and Wales reflects both the need to keep the area of the survey to a manageable size, and the conviction that Scotland, in common with the rest of Europe, has enjoyed a substantially different housing tradition from England and Wales. The exclusion of Scotland is also a reflection of that country's different legal and administrative traditions which might further complicate

comparison with English examples. England and Wales form a commonly used base for statistical information, though occasionally, in the absence of more relevant information, data referring to Great Britain is used. In the absence of any comparable work based on England and Wales research data from Scotland is occasionally cited.

iii) Organisation of the Thesis

A central theme of the thesis is the contention that there has been, throughout the period of the study, a variable level of perception of the importance of the garden between the public on the one hand, and the policy makers and implementors on the other. The structure of the thesis reflects this important theme. The text is divided into three Sections, the first of which examines the significance of private garden provision to the consumer, the householder. Thus the basic importance of the subject of the research is established in Section One. Section Two examines the history of Government housing policy over the period 1918-81 in order to determine both the effect of various policies, and to ascertain whether public policy has generally accorded with the views of the householder discussed in Section One. Section Two concentrates mainly on Central Government action and advice, but frequently illustrates the effect of these on the actions of individual Local Authorities. Section Three continues this theme, by examining current policy, but seeks to increase the analysis to a finer level, especially in the examination of current Local Authority policies and attitudes. Again the comparison of official attitudes to housing and garden

provision with those of the public is a strong theme.

This comparison between public and official attitudes has implications for many areas of Government, beyond the limited field of housing and planning policies discussed here. Liberal models of Government suggest that public policy is primarily responsive to the demands of the community. However history suggests that in many cases this basic assumption is negated by political and economic expediency. (10) Furthermore, the practical impossibility of elevating detailed issues such as housing design to the level of political platforms, implies that they are inevitably subject to alteration and fluctuating levels of Government attention, and thus inevitably often do not accord with the wishes of the consumer. The degree to which Government policy has impinged on the provision or non-provision of gardens during the last sixty years therefore, is to some extent representative of a host of other policy areas and may serve as a focus for future study in areas totally unconnected with housing or planning.

But apart from the wider implications of the basic hypothesis and method of study, the thesis aims to analyse the subject of garden provision in sufficient detail to be able to suggest a direction for future policy making. Thus the final pages of the text include recommendations for the future which are derived directly from the conclusions reached in respect of all the three Sections of the thesis.

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10. For example see Blondel J - Voters Parties and Leaders, 1976, Pelican, pp 130-157

SECTION 1

1.1 INTRODUCTION

The importance of the private garden in English society is reflected in the popular idea of the English as a nation of garden lovers and in the fact that, despite their high density and degree of urbanisation, England and Wales probably have the highest level of private garden provision in Europe. The aim of this Section is to seek historic, social and functional explanations for both the substance and the image of the private garden.

Chapter 1.2 examines the origins of the private garden in England and Wales and traces its history through the major changes which have affected society from Roman times to the present day. A focus for this discussion concerns the ability of the garden to survive change, especially the intense pressures of land rationalisation and urbanisation during the agricultural and industrial revolutions.

Chapter 1.3 attempts to estimate the current supply of dwellings with gardens and to assess how this matches the apparent demand for private gardens. Demand itself is considered in terms broader than the pure economic definition because, whilst it is possible to determine the level of demand for gardens in owner occupied accommodation, on the basis that the high incidence of dwellings with gardens reflects popular demand, in rented accommodation, and particularly in the public rented sector, there is no such straightforward method of estimating demand. Tenants tend to have only a limited choice of accommodation when properties are allocated, therefore occupation of a dwelling without a private garden does not necessarily imply a lack of desire for a garden. Since Chapter 1.3 considers the question of demand amongst households generally, rather than within particular sectors, it was felt that demand was the most appropriate, even if

not strictly correct, term to reflect an amalgamation of need, desire and demand for private garden space.

Chapter 1.4 examines the role of the garden in modern English society and, on the basis of a functional analysis of private garden space, attempts to illustrate why there is such a high level of demand for gardens.

Finally Chapter 1.5 draws together the information and discussion of the previous chapters and considers the formulation of a hypothesis concerning popular opinion of the private garden as a vital feature in the residential environment.

1.2 THE HISTORICAL IMPORTANCE OF THE PRIVATE GARDEN

i) Early History

The origins of the private garden in Britain probably pre-date recorded history. The earliest firm evidence for gardens comes from the archaeological record of the Roman occupation. By the third and fourth centuries AD the steady development of villas in the countryside had produced several large country houses of similar design, in which a main block with two wings enclosed a courtyard. Detailed excavation of similar house types in other parts of the Roman Empire, along with the literary evidence of Pliny the Younger and Palladius, suggests that these courtyards were generally used as gardens, especially in the sense of outdoor rooms for sitting and dining and for the cultivation of decorative plants.

(1) Although the British climate probably afforded less comfortable living space than was provided by the Mediterranean sun, the size and shape of the courtyards in the British examples, suggests a similar function. The likelihood that most villa occupiers were of native British, rather than Roman, stock, and therefore more accustomed to the local climate, adds further support to the idea of villa courtyards being extensively used for social and recreational purposes. (2) These gardens do not seem to have been used for food production however. Villas were generally the centre of large estates where farmland outside the immediate confines of the main house was the basis of food production. Around the towns it has been suggested that allotment gardens were common. These were cultivated by the town's inhabitants,

presumably to compensate for the lack of garden provision within the urban area itself. (3) The functions of the gardens as a recreational feature, and as a food producing area (except in so far as cultivating a garden for food is considered a recreation) were thus distinct and confined to different locations and to different types of garden during the Roman period in Britain.

Following the Roman withdrawal there is little documentary or archaeological evidence to suggest the ownership or cultivation of gardens until the establishment of the monasteries. Monks of all orders were devout gardeners for sound practical reasons. Their produce was a vital addition to the diet of the monastery and, since the monasteries were noted as places of healing, the cultivation of herbs for medicinal purposes was also developed. Archaeological evidence suggests the existence of gardens at several monasteries such as Mount Grace in North Yorkshire and that of St Albans. The financial accounts of monasteries also frequently mention payments to gardeners and expenditure on seeds and equipment. (4) The monastic herb garden has an important place in the history of the garden since it is a principal ancestor of the modern flower garden. Many herbs produce attractive flowers, and, although these were not the original reason for their cultivation, it is likely that the monks, and the cottage gardeners who procured plants from them, soon began to grow herbs as much for display as for their culinary or medicinal purposes.

As for the domestic garden during the Middle Ages very little is known. That gardens existed in and around London in

the twelfth century is documented by Fitz Steven, the biographer of Thomas à Becket, who wrote:

"On all sides outside the houses of the citizens who dwell in the suburbs there are adjoining gardens planted with trees both spacious and pleasing to the sight." (5)

The majority of the population lived in the countryside at this time, however, and here the distribution and type of housing differed enormously between regions. Many households kept a pig or cow which was often grazed on common land, and most households grew a large quantity of their own food. Major land holdings were often remote from the dwelling, as at the village of Wigston Magna in Leicestershire, which is typical of this region of England, where the open field system prevailed. Yet even here, where all the dwellings and farms were concentrated on to one small village site with every house abutting one of the two main streets of the village, gardens, orchards and small pastures or crofts were usual with each dwelling, in addition to the main farm holding. (6) In other areas of the country settlement was not so concentrated, and individual farms and small hamlets were more common. In these circumstances there was no pressure for space as there was in the compact villages of Leicestershire, and thus the space around the dwelling almost certainly served the function of a garden, whether it was formally defined by fences or not. (7)

There is also extensive literary evidence for the practice of gardening. The earliest example is the work of Alexander Neckham (1157 - 1217) entitled De Naturis Rerum, but this work should be treated with some scepticism. Many of the plants mentioned could not possibly survive our climate and many of the

suggestions are patently nonsensical. Nevertheless, these aberrations may be partly explained by the fact that the climate was warmer before about 1300. Around 1400 a much more practical and realistic manual of gardening appeared, written by Mayster Ion Gardener and entitled The Feate of Gardening. This book gave advice on the planting and care of a great variety of garden crops both for culinary and medicinal purposes. In 1558 Thomas Hill produced what was essentially a re-hash of classical knowledge of gardening gleaned from such authors as Palladius, Columella and Cato, but its importance is that it sold in large numbers, several editions being published, and it thus provides evidence of an increasing interest in gardening matters. Further proof of this trend is provided by Thomas Tussers' Hundred Good Points of Husbandry (1557) which ran to twelve editions. (8)

From the Tudor period onwards a class distinction becomes apparent in terms of garden type and function, between the rich and the poor. For the ordinary household the garden continued, as in the past, to serve as a valuable source of food. But amongst the wealthy the garden increasingly became a focus of intellectual interest and status. Wolsey's palace and gardens at Hampton Court and Henry VIII's Nonesuch are the foremost early examples of gardening on the grand scale. From this time onwards until its culmination in the eighteenth century the landscape garden was in a continuous state of change and development. It is not the intention here to document a history of the great gardens and landscape gardeners. The long term effect of such huge undertakings as Stourhead or Chatsworth in consolidating the tradition of English gardening and serving

as an inspiration to schemes on a less grand scale must not be overlooked but, apart from providing work and a source of plant material for local families, the effect of such schemes on the smaller contemporary cottage garden was minimal.

Of far greater importance to the rural cottager than the development of the landscape school were the Enclosures of the eighteenth century. The myriad private Acts of Enclosure which changed the face of much of the English landscape during the eighteenth and nineteenth centuries deprived a large proportion of the rural population of their ancient right to use the common land for grazing and the collection of fuel. Clapham's Economic History of Modern Britain claims that the enclosures possibly affected the level of garden provision too. He states that...

"...there had been some loss of garden opportunities in the previous forty or fifty years. It is not safe to assume that all cottages in the eighteenth century had a fair patch of ground attached; so the absence of gardens when found in the nineteenth, does not necessarily prove a recent deprivation. But a certain amount of recent deprivation is demonstrable. When farms were thrown together, the deserted houses might be cut up into labourers' tenements and their gardens absorbed by the engrossing farmer. Then the owner might well pull down the old cottages for, as a Surrey witness said in 1824, 'the farmers have been very anxious to get the gardens to throw into their fields...'..... Of another of the home counties Hertfordshire, the general statement is made that good vegetable gardens were uncommon in 1818." (9)

As compensation for the loss of gardens many landowners began to provide potato patches for their cottages. The potato was not commonly eaten until the early nineteenth century, when, according to Clapham, a potato propaganda campaign was waged. (c1800-1820) (10) These potato patches mark a milestone in the history of the allotment movement, though it is perhaps surprising that their origin should be in a rural rather than an urban setting.

In the towns during the period from the middle ages up to around 1800 there is evidence to support the view that gardens in association with most private dwellings were common. Perusal of town maps of c1800 such as those shown in Lobel's Historic Towns show that the system of burgage tenure was extremely widespread. Burgage plots, which were long and narrow with a very restricted street frontage, were clearly designed for the siting of a building close to the street with a substantial plot of garden land at the rear. (See figure 1.1) The translation of rural forms of housing into the urban situation was probably a common phenomenon and, indeed, has been demonstrated in the particular case of the single-storey dwellings of Sunderland. (11) Thus it is perhaps not surprising that the garden plot was readily assimilated into the plan of most towns at an early date. It is perhaps more surprising that such garden plots survived up until the late eighteenth century, when we begin to see the break down of the burgage plots into alleys and courts providing accommodation away from the main street frontage and using up valuable garden land. This process of infilling of gardens with later development is illustrated in figure 1.2. The survival of the garden in English towns up until the nineteenth century is in marked contrast to the situation on the Continent where gardens were not common in most towns. Urban development in England tended to be much less compact than elsewhere, and thus gardens did not suffer intense pressure for development. Several causes of this differential density of development have been suggested by Sutcliffe in his comparison of the Continental European tradition of living in flats with the English preference for houses. (12) He suggests for example

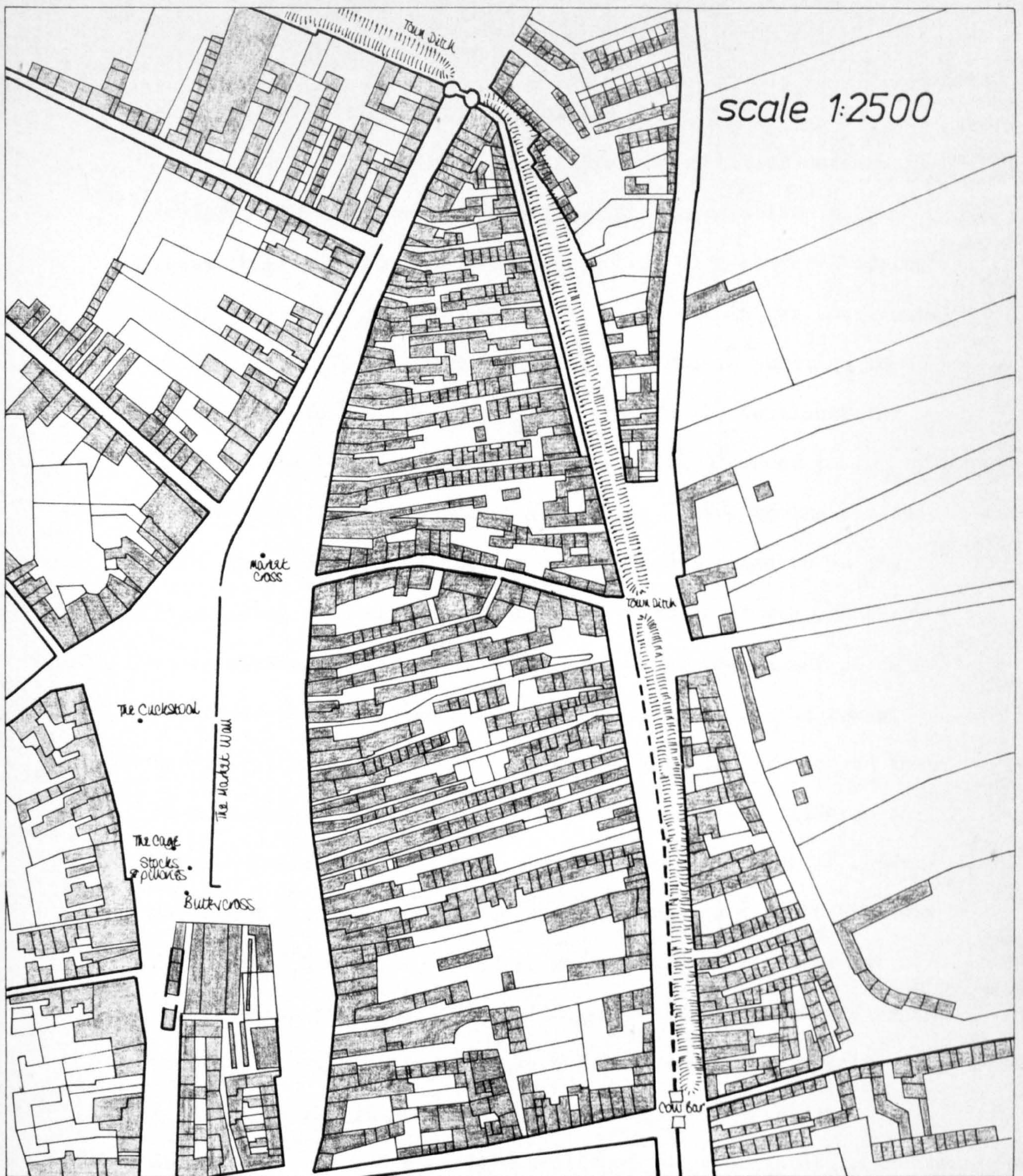


Fig 1.1 NOTTINGHAM circa 1800 SHOWING BURGAGE PLOTS.

The cultivated strips had by now been largely built upon, but the narrow frontages show the original use of such plots as long rear gardens.

Source: Lobel (ed)~ Historic Towns vol 1, 1969.

that the early unification of England under a strong Government coupled with her naturally strong island defences rendered the construction of city walls unnecessary. As a result there was not the tendency to cram high density housing on to restricted central sites that there was in the Continental walled city. The taxation system too tended to penalise the dweller within the city boundary whilst on the Continent the converse was true, certain privileges being accorded to occupants of dwellings within the walls. Hence in England and Wales there were few social or economic advantages to be had from living in a central location. Of course it was necessary to be within walking distance of work or of the market place but this was no problem since the overall size of the towns, apart from London, tended to be small, much smaller indeed than their European counterparts. As a result of such differences between England and the rest of Europe the tradition of cottage dwellings with private garden space in England did not give way to tenement blocks as it did in most Continental cities as urbanisation proceeded. Sutcliffe argues that by the end of the eighteenth century, immediately before a century of massive rural depopulation and urban growth, most Continental and Scottish cities had already established large areas of tenements, whereas in England this was not the case. During the period of expansion which followed it was above all, the natural conservatism of the building industry which continued to produce "traditional" building forms in each case and resulted in the distinct dwelling types of Continental Europe and England.

By the beginning of the industrial revolution the private garden was well established as a feature of life in both rural

and urban areas of England. Indeed it was regarded as the feature which distinguished England from the rest of the world by William Cobbet who wrote in 1822 that...

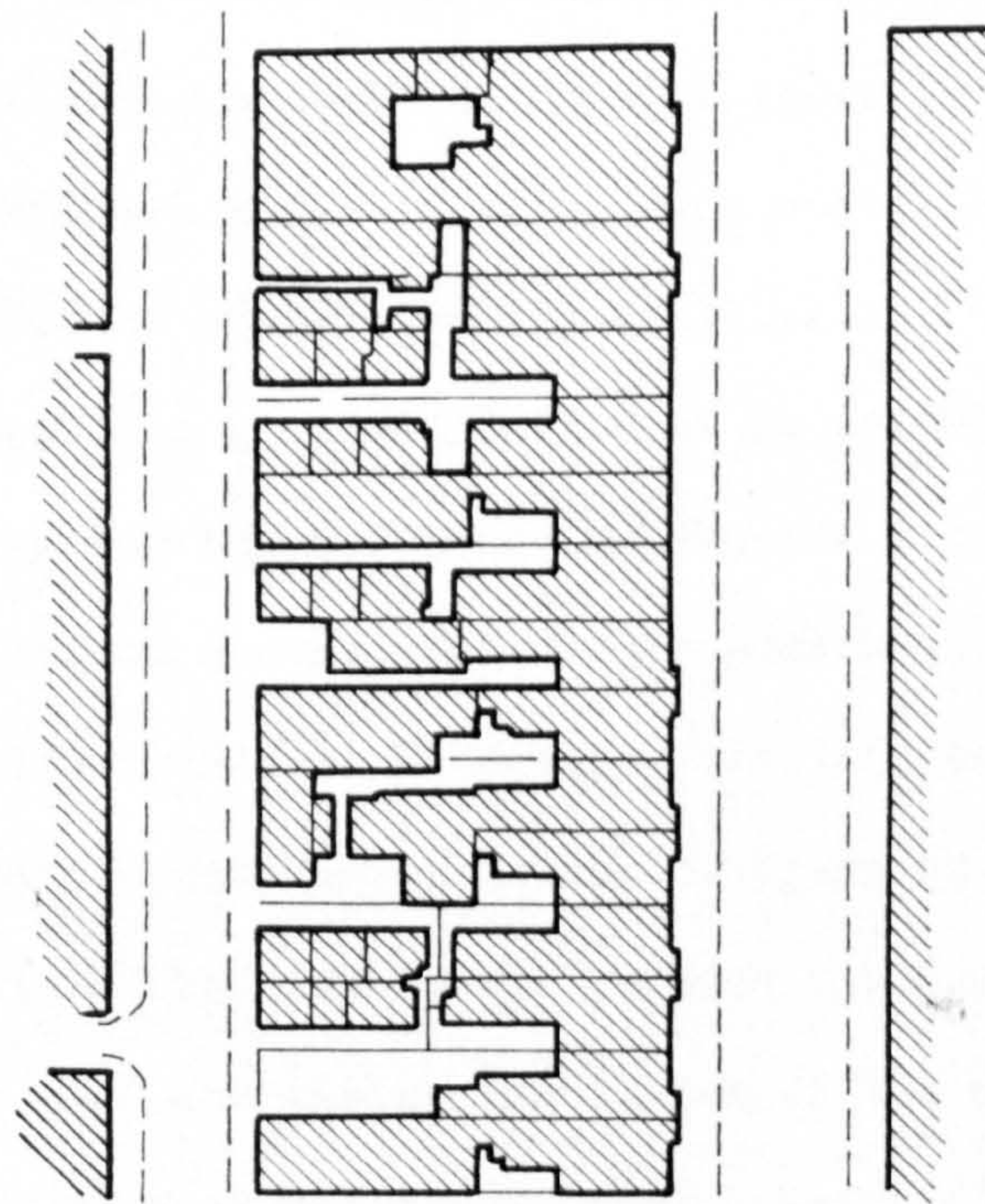
"...you see here, as in Kent, Sussex, Surrey and Hampshire, and indeed in almost every part of England, that most interesting of all objects, that which is such an honour to England, and that which distinguishes it from all the rest of the world, namely those neatly kept and productive little gardens round the labourers' houses which are seldom unornamented with more or less of flowers." (13)

ii) The Nineteenth Century

The rapid urbanisation of the early nineteenth century saw the disappearance of many town gardens as residential densities increased. A good deal of infill development took place. Garden plots for example, proved to be a popular site for jerry built courts (see figure 1.2), and most of the working class housing built by speculative builders on virgin sites included no private garden space. During the same period however an increasing interest in garden cultivation was becoming evident amongst the middle classes, and this interest was to have far reaching effects on the level of garden provision throughout society in the latter part of the nineteenth century.

Interest in the garden during the early nineteenth century sprang from a variety of sources. First of all the example of the landed nobility, many of whom spent fortunes on landscaping their estates, was a powerful influence in a society which laid great stress on social status and the virtues of self improvement. A second source of encouragement for the garden was the tremendous interest shown in botany, first by a few learned practitioners, but gradually by a greater number of

Fig 1.2 PROGRESSIVE INFILLING ON THE REAR
GARDENS OF LARGE HOUSES IN DUKE
ST, LIVERPOOL- *early nineteenth century*



Source: Errazurez- *Town Planning Review*,
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people, from the latter part of the eighteenth century onwards. This interest was a direct result of the expansion of the empire, especially in India, and of the voyages of discovery of explorers such as Cook, who brought back hundreds of new varieties of plants from many parts of the world. A tangible result of this surge of interest in natural history was the growth of botanical gardens, especially the Royal Botanic Gardens at Kew. These had been founded in 1759, were greatly expanded in the early nineteenth century, and were bequeathed to the nation in 1841.(14) The interest in individual plants, as opposed to the vistas of grass and trees favoured by the eighteenth century landscape school, which such botanical studies engendered, was no doubt instrumental in channelling popular taste in the direction of floral displays, which in turn, made possible the achievement of satisfactory gardens on the small scale.

Perhaps the greatest influence in establishing the middle class taste for gardening and making the practical achievement of town gardens on the small scale possible, was John Claudius Loudon (1773 - 1843). He devoted his life to gardening, but significantly, not in the manner of Brown or Repton. Loudon was an astute observer of the changes taking place in society and aware that the rising importance of the middle classes would soon eclipse the traditional power and demands of the landed gentry. Consequently his book The Suburban Gardener and Villa Companion (1838) was aimed at the owner of the small plot, and encouraged the development of town gardens. More than any other individual he helped popularise the pursuit of gardening, largely through his tireless literary efforts. Notable amongst these was the pioneer gardening journal

Gardeners' Magazine (1826). The success of several of Loudon's books, judged by the number of reprints, along with those of his wife, Jane Webb, is evidence for the increasing activity of the middle classes in their gardens.

Important steps were also made on the technological front. The Mechanics Magazine (25 August 1832) describes the invention of Edwin Beard Budding (1796 - 1846) which has passed into modern parlance as the lawn-mower. The original picture of the machine shows a "bare headed and wild faced rustic" struggling with this contraption. But the social progress of the machine is soon evident. Later advertisements show elegantly dressed, tranquil operators gently pushing the machine along. (15)

The passion for cultivation was not only confined to the outdoors. In the 1820s the Wardian case was invented (the actual inventor and date are a matter of dispute). This was simply a totally enclosed glass jar or case within which plants, often exotica, could be successfully cultivated. The use of these cases spread rapidly, and was instrumental in bringing the garden into the dwelling, since as a result of its use many Victorians became avid cultivators of all kinds of house plants. Although many greenhouses were already in existence on the large country estates, the Wardian case contributed to their rise in popularity, demonstrating the possibilities of cultivation and propagation on the small scale. New manufacturing techniques which resulted in cheaper glass, and the renewal of the duty on glass in 1845, were further contributory factors in the increase in greenhouses. (16)

The growth of such technical aids to gardening as the lawnmower and the greenhouse, the establishment of several gardening magazines, books and journals, and the formation of horticultural clubs and societies all over the country attest to the increasing interest shown in the practice of gardening by an ever increasing number of middle class suburbanites. No doubt a major factor which influenced this trend was the fact that gardening was fashionable amongst the rich and powerful. The value of commissions received by such notable gardeners as Paxton and Robinson attests to this. Gardening on the grand scale was almost a required passtime of any wealthy and reputable member of society, and hence it was avidly emulated, albeit on a lesser scale, by the respectable but not so wealthy classes. Indeed it was characteristic of Victorian society that such emulation should filter down as far as the lower orders. The craze for ferns or "pteridomania" which raged for several years in mid-century vividly illustrates the process of emulation. By the 1850's the mania for ferns as house plants had become so great that whole truckloads arrived daily in London from Devon and Cornwall, and many species were in real danger of extinction through over-cropping. Ten years later the enthusiasm for ferns was waning,

"especially because the cultivation of ferns had permeated down to the artisan classes, thus ruining the exclusivity and tastefulness which so appealed to Victorian sensibilities." (17)

The opportunity for members of the artisan class to pursue an interest in gardening was however strictly limited by lack of space. The high density development which provided dwellings for the poor in the growing cities yielded little or

no space for amenities such as private gardens. A tiny back yard was usually the most that could be aspired to by the working man and his family, and often, as in the case of back to back houses, even this limited space was not available. Even so, his plight was not overlooked in the plethora of contemporary gardening literature. J R Mollison's The New Practical Window Gardener (1879) specifically claimed to be written

"for those who live in towns and large cities, who have no convenience for cultivating flowers but their windows." (18)

In the case of the garden the process of emulation by the working classes of middle class habits and life styles was more than a simple one way transfer of ideas. Working class involvement in gardening was actively encouraged by many middle class intellectuals and reformers for well developed social, political and moral reasons. Perhaps of paramount importance amongst these was the promotion of the idea of virtue in labour and vice in idleness. In this respect the provision of a garden plot was seen as a method of providing useful labour to occupy the working man's leisure time, and lure him away from the vices of drink, crime and idleness. This view of the virtues of gardening was aptly expressed by Leon Faucher in Manchester in 1844 when he commended the equilibrium of society, the improvement in the state of health and life expectancy of the operatives, and the quality of their morals at those establishments where he also frequently noted the opportunities for the employees in their spare time to direct their energies to the cultivation of the soil. (19) The reference here to 'employees' is an important one, since it was usually only in housing provided by employers for their workers in company

villages or estates that the reforming zeal and idea of moral rectitude, which lay behind the provision of gardens with working class housing, actually produced tangible results. Early examples of this arrangement include Samuel Oldknow's factory at Mellor, Manchester, where the employees' dwellings were not only provided with small gardens but also had grazing rights for a cow on nearby land. At Styal near Manchester, the Gregs' factory arranged for a division of activity within the family between field and factory and looked to the large gardens provided with the cottages to supplement the low wages paid in the mill. (20) This latter case illustrates another solid argument, on the part of the employer, for providing gardens with working men's cottages. By providing the means for his employees to be partially self sufficient the employer was able to substantially reduce his wage bill, and to use the garden as another method of financial and moral control over his workforce along with the tied cottage, the school and the chapel.

Not all those industrialists who saw the benefits of providing housing along with their factories ascribed to the philosophies outlined above in respect of gardens. Titus Salt's model industrial village at Saltaire for example consisted, in the main, of long rows of closely packed housing, which although more soundly constructed and set out according to more sanitary principles than most speculative working class housing of the period, nevertheless made no concession to any desire on the part of the tenants for gardens or green spaces within the residential area. Nevertheless Salt did provide a park across the river from his factory.

Despite its lack of garden provision, a scheme such as Saltaire produced housing conditions which were infinitely superior to most contemporary working class housing. The unplanned activities of many speculative builders in the rapidly expanding towns had resulted by the middle of the nineteenth century in a most squalid assortment of jerry built, ill lit, ill ventilated over-crowded dwellings with only the most primitive sanitary arrangements. In and around these ghettos there was little or no opportunity to breathe fresh air or even catch a glimpse of grass or trees. Private gardens were non-existent and the municipal provision of parks was in the 1850's still in its infancy*. The contrast with the housing conditions of the middle classes was extremely marked. Engels for example points out that it was possible to live in a city such as Manchester or London and never see slum housing or poverty simply because such deprived areas were sharply differentiated; large numbers of substandard, overcrowded working class dwellings were packed tightly together, separate from the middle class suburbs. His description of back to backs and courts also contrasts strongly with his reference to the housing of the employers. In Manchester he notes there are...

"...a few lanes along which the gardens and houses of the manufacturers are scattered like villas." (21)

By the second half of the century suburbanisation was on the increase. Considering the housing conditions which prevailed in the inner city, along with the pollution from the factories located

* Victoria and Battersea Parks, London were opened in 1846. Preston Birkenhead and Manchester had recently laid out parks - See Gaskell 1980 op cit Ref 19

there, it was no wonder that the green fields and open spaces of the countryside formed such a utopian image. As Ashworth points out:

"For employers of the second generation and for professional men the solid Victorian villa in its garden on the edge of town became a natural habitat." (22)

Thus along with dwelling size, structure and sanitation, the provision of gardens was a key factor in the distinction between middle and working class housing. Even leaving aside the potential of gardens for food production (the obvious functional basis for desire for a garden on the part of the workers) the propensity of Victorian society for emulation of 'superior' life styles inevitably turned the garden into a status symbol, and a feature avidly copied wherever possible by working class households.

The example of Walkley, a suburb of Sheffield which was developed from mid-century onwards, attests to the general desire for garden space amongst both working class and lower middle class households. The area of 292 acres was sold off in freehold plots to individuals, who first developed them as allotment gardens, but soon began constructing their own dwellings on the site by means of terminating building societies. The result was an area of mixed housing and varying plot sizes, but with almost all the dwellings having gardens attached. The overall density of the scheme was about ten dwellings per acre. The Town Planning Review, 1912, which recorded this development of fifty years' previously, noted its similarity to later garden suburb ventures and commented that Walkley was...

"...a valuable piece of corroborative evidence in favour of the modern Garden Suburb, as it shows that

the workingman, when left to his own devices and able to choose, dealt with his house and surroundings on precisely similar lines in all essential features." (23)

Thus despite the upheaval of the industrial revolution and the resulting denial of access to a garden for many of the working class, the English garden tradition persisted. The example of Walkley, and the increasing proliferation of middle class villas with gardens in the suburbs, clearly show the strength of the desire for gardens amongst two very different sectors of society in the mid-nineteenth century.

By the second half of the century the desire for and expectation of life in a single-family dwelling with garden was sufficiently strong to doom to failure many attempts at alleviating housing conditions of the poor which employed less traditional dwelling types. There was for example a growing interest amongst certain philanthropists, such as Peabody, in tenement building as an economic means of providing for the housing of the poor.(24) Yet none of the tenements really proved successful enough for this activity to develop on a large scale. The conservatism of the working classes in their attitudes to what were in fact imported dwelling types, and their natural aspiration towards the dwelling type inhabited by their peers was enough to ensure that such flatted development, bereft of any private garden space, would never become popular. The failure of flats as a popular form of dwelling is well documented by Tarn and Gaskell. (25) Both these authors show the unpopularity of flats in widely differing circumstances - amongst middle class Londoners and the workers of Lancashire and Yorkshire -again adding weight to the importance of the traditional house and garden amongst all sections of English society.

The desperately inadequate standard of working class housing did however provoke action from quarters other than a few socially conscious philanthropists. Many cities took action on their own account to try and improve conditions by private Acts of Parliament and by use of bye-laws. Erazurez (26) documents the case of Liverpool where conditions were as bad as anywhere. The regulation and final abolition of the worst excesses of courtyard housing was a slow and piecemeal process which produced by 1876 a standard layout for typical bye-law housing which was largely adopted into national legislation. As a result of the expressed need for ventilation along the backs of such housing the model bye-laws of 1876 suggested a statutory requirement for a backyard:

- i) At least as long as the height of the dwelling up to the eaves.
- ii) At least 150 square feet in area and adjoining either other yards or a street on three sides. (27)

Such an area is minimal in terms of amenity space provision, but it marks an important step in the progress towards individual gardens as a general feature of working class housing.

The housing which resulted from the bye-laws adopted by various Local Authorities throughout the latter part of the nineteenth century was, in modern design terms, tedious in the extreme. Generally a grid iron layout was employed, and apart from the carriageways and pavements at the front, and the yards and back lanes at the rear, no amenity space separated the long lines of terraces. Yet the development of the bye-laws and their enforcement indicates a degree of concern for the housing conditions of the poor. Such concern was manifested in other

areas by reformers concerned at the magnitude of urban growth. For example, the 1860's and 1870's saw the establishment of municipal parks in most provincial towns and cities. Often the cost was borne, not by the Local Authority, but by public benefactors such as Sir Francis Crossley, who financed the People's Park in Halifax, which was designed by Joseph Paxton (1857) (28). There was increasing concern shown for the plight of the poor, especially in respect of their housing conditions, in a growing industrial and capitalist society. Propagandists such as John Ruskin and William Morris, argued vehemently in favour of the de-industrialisation of society and a return to traditional crafts and values. As a result argued Morris:

"... the huge manufacturing districts will be broken up, and nature heal the horrible scars that man's heedless greed and stupid terror has made." (29)

Morris' vision pressed for the decentralisation of cities and the foundation of a society based more on agriculture than on industry. In this new society, the garden plot was of supreme importance, since each family's ability to be at least partially self-sufficient from the produce of its garden was a central theme in his arguments.

The period 1890-1910 saw the beginnings of a change in city structure which was to have a profound effect on the standard and location of working class housing. Up until this period the overcrowded and insanitary condition of inner city slums had been an inevitable corollary of an unstable labour market, low wages and the requirement to work long hours of hard, physically demanding labour. Whilst the middle classes enjoyed the advantages of assured employment, shorter working hours and the resources which enabled them to commute to the suburban villas such as those described by

Engels, these very privileges depended to some extent on the subordination and poverty of the inner-city slum dwellers. (30) From the 1870s economic and technical changes occurred which promised a better standard of living for at least a proportion of the working class. As a result of the fall in world commodity prices and the expansion of foreign trade real incomes began to rise. Floud points out that between 1873 and the mid 1890s the fall in prices brought a sustained rise in real wages (31). Barker and Robbins suggest that between 1873 and 1896 per capita real incomes rose at around 25% per decade. Shorter working hours and securer jobs helped free many workers from the necessity of living close to their place of employment (33). Parallel with these changes the efficiency and availability of public transport improved to enable manual workers, as well as clerks and office workers, to commute to work in the city from suburban residences. Cut-price workmens' tickets on suburban trains, the increased money available for spending on commuting as a result of better pay and the widespread electrification and municipalisation of the tramways from the 1890s all facilitated this exodus of workers from the trap of inner-city living.*

*Workmens' tickets had been available on some suburban lines in London since 1864. See Barker and Robbins p 200 - op cit (Ref 32). This facility was extended by the Cheap Trains Act, 1883. Electrification of the tramways was a widespread phenomenon in the 1890s, resulting largely from their takeover by Local Authorities. The private companies who had operated the tramways previously had mostly acquired the land taken up by tracks, on short leases, and, therefore, did not have the confidence to invest in the switch from horse-drawn to electric power. See Sutcliffe A - Towards the Planned City, 1981, Basil Blackwell, pp 58-60.

Suburbanisation was thus extended, first in London but progressively in other cities as well. In the 1880s the four census districts with the most rapid rate of population growth in the whole of England and Wales were all suburbs of London, and in the following decade eight London suburbs were among those at the head of the list. In 1884, the Great Eastern Railway's manager, remarking on the change that had come over Stamford Hill, Tottenham and Edmonton commented that these used to be respectable districts but were now given over to workmens' housing as a result of workmens' trains (34).

In Sheffield the exodus was prompted by the municipalisation of the tramway and its expansion and electrification in the years after 1896. Workmens' fares were not introduced, since fares were minimal anyway. The maximum fare on any one line was 1d with fare stages of $\frac{1}{2}$ d on most lines (35). The result was a rapid extension of the suburbs especially at Hunters Bar, Fir Vale, Abbeydale and Darnall. J H Stainton in The Making of Sheffield remarked that in 1898:

"as trams go out, the houses go up" (56)

The Sheffield Telegraph noted too, in 1899, that:

"Cottage houses are rising like exhalations all around; the trams are proving the great building agent" (37)

A notable feature of this latest phase of suburban expansion was that many of the new houses were available for occupation by the better-paid working class. Advertisements in the Sheffield and Rotherham Independent for 1900 show many examples of suburban houses on or near the tramway routes to Hillsborough and Crookes at rents of between 5s-0d and 6s-0d per week (38), clearly within reach of a manual worker

earning 25s-0d to 30s-0d per week.* Despite their suburban location, however, the density of these new developments remained high, at around 40 dpa. The bye-law street pattern and spacing standard was the most common form employed, so little space was available for gardens. Some houses were provided with pocket-handkerchief sized plots of 3-400 square feet, but many were restricted to the bye-law standard back yard.

Around the turn of the century the attitude of Local Authorities to the continuing phenomenon of urban growth, and to the question of working class housing, also began to change. As the growth of cities rendered many of the services, which had previously been supplied by private enterprise, inefficient, as a result of either monopoly or capital starvation, Local Authorities gradually began to assume new responsibilities. Their increased involvement and investment in the provision of basic amenities such as gas, water, electricity, street transport and fire services placed a premium on the efficient organisation of city structure. The location of new housing was now a matter for concern, as a result of the need to plan municipal services in a rational way. (39) Furthermore, the problem of slum housing was

*Mechanisation led to a decline in demand for labour in many of the traditional Sheffield trades. Consequently many turned to new employment in heavy industries, the tramway and building, particularly after 1900. Nevertheless "an assured wage of 28s or 30s per week has more attraction than a skilled handicraft, where an apprenticeship has to be served, and where very likely earnings would be less." - Sheffield Independent 20.7.1901 cited by Pollard S - A History of Labour in Sheffield, 1959, Liverpool Univ Press, p 205.

perceived as a further example of the failure of private enterprise and, therefore, as a field ripe for public intervention. Sheffield's Medical Officer of Health's Report for 1899, for example, commented that:

"The better distribution of population by our splendid tramway system, with its cheap fares, will be of great assistance in bettering the conditions of the working classes generally (40)."

Action under the Cross and Torrens Acts to clear slum housing and redevelop deprived areas had been both sporadic and unpopular, mainly as a result of the requirement to replace demolished buildings in situ, usually at a high density. In 1890, however, the Housing of the Working Classes Act consolidated the previous legislation and Part III of the Act enabled Local Authorities to purchase land and build for general needs, though any properties built had to be sold within 10 years (41).

Sheffield provides a good example of municipal intervention in the housing market around the turn of the century, and further illustrates some of the pitfalls and obstacles to effective action which could occur. The Medical Officer of Health's Report on the central districts of Sheffield for 1877, which included the Crofts area, had noted the high density (182 persons per acre) and high mortality rate (35.3 per 1000) pertaining in 127½ acres of working class housing (42). Inadequate water supply and a very poor level of sanitation and ventilation combined to produce an extremely unhealthy environment. No action was taken to alleviate these sordid conditions until the 1890s, when the Corporation began to purchase areas of the Crofts prior to clearance under the 1890 Act. By 1898 a considerable proportion of the properties in the Crofts area had been acquired and these were demolished and replaced with

four story tenements, the first of which was completed in 1903. The construction of high density flatted housing of this type was a continuation of the tradition, already long established in London, of building tenements as the only means of housing an equivalent number of people to those displaced, in sanitary conditions (43). The Local Government Board appears to have been strict in its enforcement of the legislation which stated that rehousing must take place on or near the cleared site. For example in 1905, the Board insisted that replacement dwellings for those demolished in Clough Road and Edmund Road must be built in the same area. This directive overruled Sheffield Corporation's decision to leave the site vacant and build elsewhere. (44)

Even as the Crofts were being developed, however, Sheffield was contemplating building working-class housing in suburban areas, away from the existing slums. In 1898 the Corporation adopted Part III of the 1890 Act, enabling it to borrow from the Public Works Loans Commissioners for this purpose. In the same year the Corporation purchased 42 acres of greenfield land at High Storrs, and 59 acres at High Wincobank the following year (45). In both these schemes opposition from the Local Government Board proved an obstacle. The High Storrs scheme was considered unsuitable for working-class housing because of its distance from industrial workplaces and, partly as a result of this opposition, no municipal houses were ever built on the site. At High Wincobank the Local Government Board objected to the fact that the first designs did not conform to the bye-laws. However, the attraction of low land prices and the political desire to attack the housing question ensured a persistent drive towards the development of suburban housing by Sheffield and other

Local Authorities. Manchester, for example, began a suburban estate at Blackley in 1902 (46) and London developed large suburban estates at Acton and Tottenham (47) from 1900 onwards. This shift in the location of municipal housing necessarily gave rise to a debate on the form and layout of the new dwellings.

iii) Rus in Urbe

Parallel with the changes in city structure produced by market and technological change and the growing interest of Local Authorities in housing provision, developments were taking place in housing design which had their roots in the model village schemes of earlier decades. The early model factory villages of Owen, Ackroyd, Salt and others had all provided a superior environment, when compared to contemporary inner city housing, coupled with close proximity to the workplace. In these fundamental respects the model villages of Lever and Cadbury at Port Sunlight (1888) and Bournville (1895) were no different. The economic forces which persuaded their founders of the advantages of a greenfield location for their factories were also the same, namely lack of space for expansion of their factory, and the ill-health and poor physical performance of the workforce. The poor condition of the workers was ascribed to bad housing conditions, which at the same time were motivating Local Authorities to consider the advantages of suburban housing for the working class.

In the case of both Lever and Cadbury, however, a measure of concern for the social well-being of their workers is apparent. The two men were very different in many ways. Lever tended towards paternalism, providing housing at Port Sunlight only for employees of his factory, and thus maintained a strong and perhaps overbearing presence in the lives of his tenants. Cadbury was more liberal in his

attitude and allowed a large proportion of his houses to be let to non-employees, hoping to organise Bournville as a model for other housing reformers. Both, however, were concerned that their tenants should come to appreciate and enjoy the qualities of a middle-class suburban environment, rather than the often austere and dourly sanitary environment of the early model villages, and in this respect they differed from many of their predecessors. Both, therefore, demanded a higher standard of housing than the provision merely of a sanitary environment would have required. The appearance of the dwellings, for example, was considered by Lever to be of great importance. Thus the terraces at Port Sunlight were designed so as to resemble semi-detached villas, many with half timbering and similar rustic overtones. Lever rationalised his use of the middle class suburban villa as his model for Port Sunlight on the grounds that:

"The truest and highest form of enlightened self-interest requires that we pay the fullest regard to the interest and welfare of those around us, whose well-being we must bind up with our own and with whom we must share our prosperity ..." (48)

Concern that the obvious inequalities apparent in society might cause a breakdown in the social order was prevalent in the 1880s. (49)

Thus Lever's comment reflects both a genuine concern for working class housing conditions and an element of calculated political shrewdness. In effect he saw sound economic reasons for housing his work force in the style to which the middle class were already accustomed, whilst at the same time his altruism was such that Port Sunlight, unlike middle class suburbs, was not designed to show a profit. Owing to this large element of subsidisation and his somewhat eccentric and paternalistic opinions concerning the conduct of life in his model

village, Lever's development is best seen as an aberration, but an important one nevertheless.

Port Sunlight was developed at the low density of 8 dpa. Yet the provision of private gardens was not a prime determinant of this spacious layout. Every house was given an open plan front garden, but there were no rear plots and only those tenants who requested one were provided with an allotment garden in the centre of the superblocks. Lever's desire for an ordered and well maintained development prompted him to take over maintenance of the front gardens at company expense since some were being used as chicken runs and rubbish dumps. The idea of private space, in the sense of a screened and sheltered individual area adjacent to each dwelling, had not yet overcome the importance attached by Lever and his architects to the visual harmony of the overall scheme. Lever's passion for order allowed him to provide gardens only on request rather than as a matter of course.

In the matter of gardens, as in other respects, Bournville was different. Again a low density was employed (6 dpa), but most of the resulting space was divided up into private gardens. The average plot per dwelling was consequently around 500 square yards ($4,500 \text{ ft}^2$) (50). The large size of the gardens was further aided by the use of houses of unusually wide frontage. The purpose of this design was to allow the maximum amount of light and air to penetrate the house. Many contemporary designs of terraced cottages employed very narrow frontages which in turn required a rectangular plan, which restricted the amount of light reaching the central areas of the dwelling and also put a constraint on the number of windows (see 1.3 for a discussion of the effect of house type on garden size and shape). Thus as

well as producing a lighter and more airy interior, wide frontages produced more garden space. A synthesis of several ideas which have been discussed earlier is apparent in Cadbury's firm belief in the benefits of having a garden. Firstly, he believed that gardening compensated for the over-specialisation of factory labour. Here we can detect the arcadian, anti-industrialist opinions of Ruskin and Morris. Secondly, gardening promoted the cause of vegetarianism, of which Cadbury was an active advocate. Thirdly, outdoor work in the garden and the elimination of slum housing leads to improved health and fitness, and hence to a more productive workforce. Here we can see the influence of the earlier philanthropic housing schemes, but his formula also reflects an area of increasing general concern over the health of the working class. The Boer War and the revelation of the number of volunteers who proved unfit for military service brought this problem to the public eye. Cadbury also exemplified the moral attitude to labour, that work in itself is good. Thus he considered that work in the garden was itself a virtuous pastime since it prevented his tenants from spending their leisure hours in vice and idleness in the public house. Finally, his opinions again echoed the view of the early philanthropists that the yield from gardens could contribute greatly to family income (51). Indeed he estimated that the value of garden produce would be equivalent to a two shilling a week saving on rents. (52)

These beliefs led him, in the trust deed for Bournville, to ensure that:

"no house (except where precluded by the nature of the site) shall occupy more than one-quarter of the plot on which it is erected" (53)

Cadbury was less paternalistic than Lever, both in allowing tenants, other than his own employees to rent houses at Bournville, and in his attempt to make his village a paying proposition. A return of 4% was sought from the development. This requirement placed most of the cottages at Bournville beyond the means of the lower paid. Whilst a few small cottages were available at 5s 0d per week, the majority were above 6s 0d. Bournville was criticised as a result:

"since it provided houses for a class of people who could well look after themselves" (54)

Nevertheless Bournville was another important step towards the dissemination of low density houses with gardens on a much wider scale in the twentieth century. This ideal of housing was actively pursued by Lever and Cadbury and their friends and supporters during the first decade of the twentieth century. The appearance of Howard's book, Tomorrow: A Peaceful Path to Real Reform, in 1898 (later republished as Garden Cities to Tomorrow in 1902) marked the culmination of a related set of ideas based on more diverse influences (55). Nevertheless, there was a close relationship between Lever's and Cadbury's work and Howard's propagandist movement, and the combined force of their ideas proved progressively more influential. In 1901 Howard formed the Garden City Association, shrewdly availing himself of the political support of the ex-Liberal MP Ralph Neville, as Chairman of the movement. In the same year the first Garden Cities conference was held at Bournville with over 1500 delegates, including Lever and Cadbury, present. (56) The potential for a radical shift in urban development to garden city/suburb principles was a major topic for debate in the years which followed. (57) The journal of the new association provided a focus for ideas on suburban and garden city development, and carried under the heading "Some Garden City Pioneers"

profiles of Howard Cadbury, Lever and Neville, acknowledging their influence on the movement (58).

The synthesis of all the ideas so far mentioned concerning suburban development occurred in the work of Barry Parker and Raymond Unwin. In their early plans for New Earswick near York (1901-4), they established the basic elements which were to recur in their later and more grandiose projects at Letchworth and Hampstead. Amongst these, low density (10-12 dwellings to the acre net), spaciousness and private garden provision were the key factors. It should be noted; however, that the object of New Earswick was:

"to demonstrate what could be done to improve village and cottage design, without exceeding the limits of sound finance" (my emphasis) (59)

From this statement, and from the rural location of the site, it is obvious that the Joseph Rowntree Village Trust, which commissioned Parker and Unwin as architects, envisaged neither an urban nor a suburban design. When the additional factor of very cheap land is taken into account the resulting low density is not at all surprising. Nevertheless, New Earswick reflected Parker and Unwin's ideal layout designs which were illustrated in their 'Cottages near a Town', shown at the 1903 exhibition of the Northern Art Workers Guild in Manchester (60). The village also provided its architects with a practical test of their design criteria, which they did not find wanting, and thus they went on to apply them elsewhere, in more clearly urban locations. The garden was of particular importance. Every house was set in its own private plot, though communal space was also provided. The different functional qualities of each type of space were better understood by Parker and Unwin than they had been by Lever and Cadbury. In particular, the provision of large

gardens was seen by Unwin as a basic determinant of estate density.

In Town Planning in Practice (1909) he commented:

"Twelve houses to the net acre of building land, excluding all roads, has been proved to be about the right number to give gardens of sufficient size to be of commercial value to the tenants - large enough that is to be worth cultivating seriously for sale of profits, and not too large to be worked by an ordinary labourer and his family" (61)

The opportunities for cultivation, however, did not provide the entire rationale for the large areas of open space between buildings. A key concern amongst housing reformers generally around the turn of the century was the effect of a poor environment on health. The poor physical state of the poor has already been alluded to in the context of the recruitment campaign for the Boer War. In 1899, for example, of 11,000 Manchester men who wished to enlist, only 1000 were judged fit for service in the army. Overcrowded and insanitary housing conditions were blamed for this lack of fitness by social reformers such as T C Horsfall (62). The period 1870-1900 saw major advances in the scientific investigation of contagious diseases. Before this time public health measures had confined themselves mainly to combating water borne diseases, and efforts to fight air-borne diseases had rested on the fallacious belief that the free circulation of air was sufficient to dispel the miasma which was considered to be their prime cause. The identification of the causal organisms of fourteen major diseases, including the main killers, TB and diphtheria, was therefore, a breakthrough of immense proportions. (63) The realisation that the bacilli responsible for these diseases could remain virulent in damp shady conditions for long periods, often years, but that they had no resistance to direct sunlight, also provided a powerful argument for the proponents of more generous space standards

than those demanded by the model bye-laws. As a result, the importance of providing a sunny aspect and allowing sunshine to penetrate every room in the dwelling at some time during the day were themes which were taken up by the housing reform movement. Parker and Unwin themselves regarded "sunlight as absolutely essential for healthy lives." (64) The Town Planning Review made frequent references to the value of light and air (65). In particular it was suggested that:

"the supreme remedy for rendering towns healthy and especially for successfully combating tuberculosis, is the penetration of rays of the sun into all the possible corners of the city ... Hence these health giving forces of an irresistible power which every ray of the sun contains ought to be the starting point of a real revolution in the methods of town planning" (66)

It was not only TB and diphtheria which could be combated by direct sunlight. Rickets was noted by T C Horsfall in 1913 as a major problem in the densely built and overcrowded conditions of German tenements (67). The major cause of this disease is Vitamin D deficiency. Exposure to direct sunlight for only a few minutes per day ensures an ample supply of the vitamin to the body. This scientific justification served to reinforce the political and social factors involved in the development of working class housing along the lines of middle-class housing.

Thus public health grounds provided a sound basis for arguments in favour of expanding the space between buildings. Initially, as we have seen in the case of Port Sunlight, the utilisation of this space was not clearly defined beyond its uncertain description as public open space. At Bournville, however, Cadbury demonstrated the benefits of utilising this extra space as private gardens. Parker and Unwin's rational approach to the division of outdoor space according to func-

tion further strengthened the case for private gardens and was crucial in the adoption of the cottage in a garden as the model for housing reformers everywhere. Whilst this model displayed radical differences from the normal standard of working class housing, it nevertheless bore great similarities to the type of housing which the middle-class had enjoyed for several decades. In a perceptive comment on the changes occurring around the turn of the century Abercrombie noted that:

"The original contributions which England has made (to town planning) have been owing to private initiative, and have consisted in democratising a type of suburban development which had been practised as the normal method of the well-to-do, since the close of the eighteenth century - ie houses, detached or in small groups set in gardens on the outskirts of the city" (68)

Furthermore, despite Abercrombie's comment, the concept of low density garden suburbs for the lower income groups was by no means universal, nor was it applied on a particularly large scale. The debate on the merits of such housing was widespread, however. Gaskell notes that the 'question of the suburbs,' became a matter of public debate in the years around 1900 with copious commentary in both the architectural and popular press. (69) The deliberations of Sheffield Corporation reflect this national concern and provide a fascinating record of the debate.

In 1903 as we have already noted, Sheffield completed a block of tenements in the Crofts. Only two years later, at a conference on the development of suburban areas, it was claimed that this development had been carried out unwillingly and only under compulsion from the Local Government Board. The Sheffield working man, it was suggested:

"... preferred to have a cottage with a small garden plot, where children could learn to love the flowers and enjoy the pure fresh air as far as they possibly could." (70)

Whatever the preferences of the Sheffield working man, the Council continued to vacillate. In 1911, after a change of political control, it advocated the building of block dwellings with the £50,000 offered under the Sutton Bequest. The Federated Trades Council, in a gesture of opposition, campaigned against the proposal in the hope of securing the money:

"... for cottages where the sun can shine in and with a bit of garden attached to them." (71)

Nevertheless, the Council approved the block scheme.

At the same time as the centre versus suburb debate was taking place, the Corporation's suburban developments themselves illustrated a variety of influences, not all of them related to the nascent garden city/suburb movement. In 1906 the first municipal dwellings at Wincobank had been erected. The 53 cottages were set around a quadrangle in the centre of which was a green. The City Surveyor reported in 1913 that:

"This was considered to be a much more satisfactory arrangement than the provision of a garden at the rear of each house as the general appearance of the houses is often very much deteriorated if the gardens are not kept tidy. The gardens also in time have to accommodate a variety of wooden and other structures. These often become dilapidated and are erected without any attempt at uniformity or suitability. These municipal greens are common to all the houses ... They give plenty of light and air to the dwellings, and form a recreation ground for the children. If gardens are required, the tenants can obtain them by taking allotments ... on the estate." (72)

It is not difficult to detect the influence of Port Sunlight on this scheme, although the density of 25 dpa was far in excess of the 8 dpa at Port Sunlight. The cottage exhibition which followed in 1907 was very different, being developed at the lower density of 12 dpa, and with each house standing in its own garden. Outside the area of the exhibition scheme, however, the Wincobank estate was developed at

densities of up to 20 dpa, though most of the available space was given over to private gardens.

Speculative building, which still accounted for the vast majority of new suburban houses, tended to be at higher densities than these. The standard bye-law layout dominated the market. Abercrombie, for example, pointed out in 1913 that:

"The normal suburban development consists in vast areas covered with monotonous two-storey houses at the rate of 40-56 to the acre ..." (73)

A clear distinction existed between this type of suburban building and that which followed the garden suburb model density of around 12 dpa. The crucial factor was development cost and the subsequent rent. A ceiling of around 6s per week seems to have been the upper limit for working class households, and it is notable that the rents on most lower-density suburban estates, including those built by Local Authorities, were in excess of this amount. Rents at Wincobank, for example, ranged from 6s 6d to 7s 3d and were thus beyond the reach of the lower paid. This problem was pointed out at the 1905 Suburban Development Conference in Sheffield by Councillor Fildes who commented that it was "these poor fellows with miserable families" who had to live on 18s-20s per week that the Corporation ought to be concerned with. The rest could take care of themselves. In reply, Alderman J Wycliffe Wilson argued that the idea of building cheap low-density suburban housing within the reach of these poor people was "not worth a great deal of consideration". The Corporation must "build the kind of house they were likely to let, bring the people out of the towns, leave more room for the very poor in the centre, and let the slum property go down in value, and as it went down in value it would be rebuilt" (74).

This debate in fact highlighted the crux of the housing policy problem which still besets Government today. Both contributors were correct in their view that it was not possible without massive subsidy to produce low density suburbs for the most poorly paid workers who, after all, constituted the heart of the slum housing problem. The subsequent history of suburban housing development, even after the introduction of State subsidies, proved this point (see 2.2 and 2.3). The theory of filtering, to which Alderman Wycliffe Wilson referred has formed the basis of much of subsequent Government housing policy, though its expressed relationship to inner city land values did not emerge until the late 1970s (see Conclusions and Recommendations). This debate, and the very fact of the conference at which it took place, does however, vividly illustrate the increased concern for housing and town planning matters in the early years of this century, and sets the provision of private gardens at the very centre of the discussion.

Several commentators have discussed the influences and personalities involved in the town planning movement in great detail. (75) Their analysis has, however, tended to be misleading in that it centres on the activity of a small minority, rather than comprehending the totality of the urban change which was taking place. Furthermore, these commentators have tended to address the question of how, rather than why, the town planning movement increased in stature between 1900 and 1920. The importance of the Garden City movement as a model, the propagandist role of the Garden City Association, the influence of the philanthropic model schemes of Lever, Cadbury and of the Co-Partnership Tenants Ltd, and the contribution of individuals such as Howard, Parker, Unwin, Nettlefold and Adams have all been ably demonstrated in these attempts to

explain the mechanism of change. The fact remains, however, that the focus of attention of the early town planning movement was on housing and was closely related to the increase in the rate of suburban expansion.* Town planning, in the limited sense in which it was interpreted during its early years,[‡] can therefore, be seen as a direct consequence of market trends which had produced a demand for a better standard of accommodation from both the middle and upper working classes. The question of garden space was just one factor in this growth of demand for higher standards. The relative success of the garden suburb model as opposed to the pure Howardian garden city provides further support for the idea of the town planning movement as a reinforcement of market trends rather than as a radical alternative solution to the problems of urban growth. By 1914, for example, Ashworth notes over fifty garden suburb schemes in progress, whereas at that date Letchworth was still the sole example of garden city development.

*The period 1897-1907 saw a peak in house-building activity, much of it in the suburbs. Indeed, property owners were increasingly worried by a seeming over provision of housing during this period. See Offer A - Property and Politics, 1981, Cambridge Univ Press, p 280.

[‡]The stated aim of the 1909 Act "to ensure by schemes which may be prepared either by local authorities or landowners, that, in future, land in the vicinity of towns shall be developed in such a way as to secure proper sanitary conditions, amenities and convenience in connection with the laying out of the land ..." illustrates the Act's concentration on the control and design of new suburban expansion. It ignored the far more complex problem of the existing urban areas. Furthermore, adoption of town planning schemes by local authorities was entirely voluntary. See Cherry G E - The Evolution of British Town Planning, 1974, Leonard Hill Books, p 63.

Furthermore, town planning was initially more synonymous with ordinary suburban development than it was with garden suburb development. The proposals for Sheffield, for example, put forward in 1911 by the local architect E M Gibbs, included a systematic ring of planned suburbs around the city. Density was to be restricted to the garden suburb level of 12 dpa only in the middle class suburbs of Nether Edge, Bannerdale, Ecclesall, Greystones, Ranmoor, Nether Green and Fulwood. In the "workmen's suburbs of Tinsley, Wincobank, Darnall, Manor, Intake, Norfolk Park, Meersbrook, Woodseats, Millhouses, Crookes, Walkley, Rivelin, Hillsborough, Owlerton and Wadsley" it was suggested that "the number of houses should be 20 gross and 24 net per acre" (76). The proposals also suggested that within a half-mile radius of the city centre there should be no restriction on density beyond the city bye-laws.

As well as this rather liberal interpretation of the ideals of town planning, it is also worth noting the scale of town planning activity in the early years of this century. Even by the time of the 1909 Act, town planning represented the activity of only a very small group of individuals. Furthermore, the number of schemes actually adopted under the Act, by 1919, represented an area smaller than that of Greater Manchester County today (77). Likewise, municipal house-building, whilst it provides a fascinating area of study, was not undertaken on a large scale. Between 1890 and 1914 less than 5% of all new houses were provided by Local Authorities. (78) The key to the undoubted changes in housing location and supply which occurred from the 1890s onwards must, therefore, lie with the consumer and with the speculative builder. The importance of town planning, the garden city movement, and particularly the work of its most accomp-

lished exponents, Parker and Unwin, was that it set a standard of housing which, at its price, was superior to most previous and many contemporary schemes. It thus served to raise expectations in the housing market. The cost to the consumer of low density garden suburb housing was higher than that of higher density housing. Even Unwin, in his propagandist pamphlet, Nothing Gained by Overcrowding!, admitted as much (79). However, Unwin made great play of the fact that in terms of rent per unit of area, garden suburb housing was cheaper. Thus, for what amounted to a modest increase in rent, the occupiers of garden suburbs gained the advantage of much more spacious, healthy and well designed surroundings. Despite the failure of the garden suburbs to accommodate the poorest families, the improvements in suburban transport and the increase in real incomes amongst the artisan class during the latter part of the nineteenth century did open the opportunity of living in a low density suburb to a much wider section of society than had been possible previously.

The crucial period in the transmission of garden suburb layout designs into widespread use did not begin until 1918, with the shift in political opinion in favour of the public provision of good quality housing on a large scale. Until this time Governments had contributed to the creation of a statutory framework for the provision of public housing, but had not been prepared to give State subsidies for housebuilding. Swenarton points out major changes in this attitude towards the end of World War I. (80) The basic concept of the State subsidising dwellings on a large scale had already become accepted as a result of the serious housing shortage brought about by the low level of building activity during the War (81). Central Government, therefore, commissioned the Tudor Walters

Committee to examine the design and layout of working class housing in 1917. The quality of dwellings at first envisaged, however, was much lower than the quality finally recommended by the Tudor Walters Committee. In its brief to the Committee the Local Government Board stated:

"If expense were no object, or if the tenant would be prepared to meet the extra cost ... by the payment of extra rent, the Board could readily accept the ideal arrangements desired, but as matters stand they are of the opinion that less expensive arrangements must be accepted as sufficient" (82)

Suburban development of the bye-law type was thus seen by the Local Government Board as the most likely model for Local Authority housing following the war.

Strong opposition to this formula was voiced by housing reform groups such as the Workers' National Housing Council. Furthermore, leading figures in the garden city movement were strategically placed to have a profound influence on housing policy. Raymond Unwin himself had been the Local Government Board's chief town planning inspector since 1914, and was a member of the Tudor Walters Committee. Cecil Harmsworth, Chairman of the Garden Cities and Town Planning Association, was, along with Unwin, adviser to the cabinet on housing matters. Of the other member of the Tudor Walters Committee, James Walker Smith was a supporter of the garden city movement as was the chairman himself, who was a director of the Hampstead Garden Suburb Trust. Finally, the political mood in 1918 swung dramatically in favour of the State providing high quality housing for the working class. The cry of 'homes fit for heroes' was an emotive and successful election platform for Lloyd George in 1918. The coincidence of the election campaign with the publication of the Tudor Walters Report provided a ready-made model for high

quality housing based on the garden suburb principle. The authors of the report fuelled their argument with the contention that:

"In the face of an improving standard it is only wise economy to build dwellings which, so far as may be judged, will continue to be above the accepted minimum, at least for the whole period of the loan with the aid of which they are provided, say 60 years; to add to the already large supply of houses on the margin line might prove anything but economical in the long run." (83)

With the resignation of Hayes Fisher, President of the Local Government Board, and the appointment of several more proponents of garden suburb layouts, namely Sir James Carmichael, J W Smith and S B Russell, to posts within the Board, the position of the movement was actively strengthened. The grant of Addison's 'open-ended' subsidy was the final element in ensuring that a low-density suburban layout be adopted almost everywhere for municipal housing schemes, with near-universal garden provision as its inevitable corollary (for a discussion of the terms of reference of the Tudor Walters Committee, its deliberations and recommendations, see 2.2).

iv) Twentieth Century Gardens

Residential development in the twentieth century has been characterised above all by a move away from the older centres towards the suburbs. Just as the nineteenth century saw a vast surge of people into the cities and the development of tightly packed streets of overcrowded housing, this century has seen a reaction to such high densities. A natural corollary of this reduction in densities has been the provision of gardens with suburban dwellings. The increase in the overall level of garden provision has been matched by an increase in gardening activity. Jackson (84) points out that this has been aided by a general reduction in working hours producing more leisure time to be spent in the garden and by the introduction in 1916 of "daylight saving", giving extra evening daylight during the main gardening season. Not only has there been a rise in interest in the garden as a focus for cultivation of flowers and vegetables, but there has been consistently high demand for dwellings with gardens for less specific pursuits. (The value of gardens for various functions and reasons is discussed in 1.4) No quantified evidence exists from the nineteenth century or from the early years of the twentieth century to illustrate the level of demand during these periods. The first social survey Enquiry into Peoples Homes (85) was undertaken immediately prior to World War II. This survey concluded that;

"...a majority of all respondents identified their ideal house as a small house in a garden."

Only one in ten respondents preferred a bungalow and one in twenty a flat.

The popularity of dwellings provided with gardens has already been alluded to in the case of the garden city/suburb designs of the early twentieth century. The private garden also received a tremendous fillip as a result of the German submarine blockades of World War I when home food production became vital to the survival of the nation, and all available land was turned over to vegetable crops. At the end of World War I no doubt the amount of food production from private gardens fell, but the popularity of gardens did not lessen. During the 1920s and 1930s garden city designs were the basis of many private and Local Authority housing schemes. (See 2.2 and 2.3) No market research appears to have been carried out to investigate consumers' housing preferences during this period, but the boom in private house sales during the 1920s and 1930s (2.88 million dwellings, almost all with private gardens, were built for sale between the wars (86)) attests to the popularity of this dwelling type, which closely conformed to the preferred house type of the Enquiry into Peoples Homes. The change in the tenurial structure which the shift to private enterprise building for sale in the 1920s and 1930s initiated has been an important factor in contributing to the success of and related demand for private gardens. Almost all housing built for sale this century has been provided with private garden space and thus the social status attached to owner-occupation has become applied to the private garden as well.

The popularity of the private garden was further corroborated in 1941 by a Bournville Village Trust study. (87) Here it was found that 92.4% of a sample of over 7,000 Birmingham

residents drawn from every area of the city, expressed their liking for gardens. Further evidence for the level of attention paid to gardens was also provided by the survey of garden condition which formed a part of this study. Gardens were graded by the survey team as either good, fair or bad according to their condition and level of maintenance. In all around 17% of gardens were judged to be in a bad condition, though whether this implies that they were totally untended is not explicitly stated. Further evidence from Ward and Best's study, The Garden Controversy, 1956 (88) suggests that only 10% of gardens nationally were untended in 1939. Given that some gardens were valued for functional reasons apart from cultivation, and therefore a poor outward condition did not always imply a total lack of value, the evidence provided by both these surveys indicates that a high proportion of households valued their garden space.

Frederic Osborn, the longstanding campaigner for the designation of garden cities, was also a strong supporter of the ideal of near universal garden provision. Although he did not detail his sources directly, he again provided support for both the above mentioned surveys in a letter to Lewis Mumford dated 7th September 1943;

"...every considerable kind of opinion survey on the type of dwelling desired.....all show that 90 to 95 per cent want houses and gardens and don't want flats." (89)

Thus taking all of the above information into account, we can reasonably postulate a demand for gardens from around 90% of households in the late 1930s and 1940s. As 1.3 shows (pp 80-86) this figure accords well with the estimation of

current demand for gardens, and there is little reason to suppose that this level of demand has fluctuated in the intervening period.

Official attitudes in the meantime, between the early 1950s and the 1970s however, have not shown a marked enthusiasm for the private garden. (Official policies regarding housing and gardens and examples of the type of housing produced during this period are discussed in Section Two. (pp 196-262)

The increased official interest in the private garden as a potential food producer in times of shortage, during the two World Wars, was ironically one reason for the reaction against it during the 1950s and 1960s. During World War I the number of allotments more than doubled (90), and it can reasonably be assumed that the garden cultivation of vegetables also increased markedly. This was indeed the case during World War II when again much land was taken over for allotments and the number of gardens growing vegetables rapidly increased. For example of all households that formerly grew flowers alone, only 20% were not growing vegetables by 1942. (91)

The Dig for Victory campaign was so successful that by 1944 Britain was producing about 10% of its food from private gardens and allotments. (92) The shortages in the years following the war up until the early 1950s served to prolong the production of home grown food, but the amount of land under cultivation inevitably decreased once rationing ceased. The dramatic decline in the number of allotments from 1.1 millions in 1950 to 550,000 in 1970 illustrates this trend. The post-war decline in the number of allotments had an important influence on attitudes to gardens. Because it was easily measureable it was only too tempting to extrapolate from it to private garden

usage, since as 1.4 shows, the function of the private garden extends far beyond the cultivation of vegetables and flowers which is the main use of allotments. Hence when housing policies in the public sector began to favour flats as opposed to conventional single-family houses, in the late 1950s and 1960s, the lack of gardens with many of the new units was not seen as a major problem by the policy makers. (See Section Two) In 1961 the Parker Morris Committee noted the decline in the use of allotments and gardens for food production and assumed that it was directly paralleled by a general decline in interest in private gardens. The Committee considered that because of the rise in post-war living standards, few families now relied on their gardens as a source of food, and hence in this respect the importance of the garden had declined. (93) In conjunction with the decline in the importance of the garden in this one aspect, the Committee also suggested that other leisure interests such as the motor car were taking up more of peoples' time and would therefore further the decline of the private garden in future. Overall the recommendations of the Parker Morris Report suggested that the garden was a peripheral issue, and that so long as open space, and especially play space, was provided within the housing area, the lack of private gardens was unimportant.

Admittedly the Parker Morris Report did not make a great deal of these arguments, which were relegated to a few short paragraphs. However they were seized upon by later commentators, who saw no reason to contest them. For example the MoHLG survey Private Gardens (1966) echoed Parker Morris' opinion

stating;

"No evidence has been found to indicate clear trends in the uses made of back gardens, but it is possible that increased car ownership and leisure activities outside the home will reduce the amount of time spent in the garden and the range of activities." (94)

In an article on Gardens on Housing Estates (1968) John Cook also noted the prevalence of such attitudes, commenting that changing patterns of employment and ways of spending leisure time are

"widely believed to have influenced attitudes towards gardens." (95)

Whilst there is evidence to suggest that the importance of the garden for food production declined in the 1950s and 1960s following the huge output from private sources during the war, there is no evidence to support the view that the garden itself became less popular. One of the mainstays of Parker Morris' arguments, that increased private car ownership would hasten the decline in the garden's popularity, has been challenged by Sillitoe in Planning for Leisure, 1969. He found that as far as desire for a garden or for more garden space goes;

"More vehicle ownership however, appeared to have no effect on opinions." (96)

Thus Parker Morris' arguments must be seen as a reflection of contemporary housing policy which favoured high residential densities and the provision of communal instead of private open space, rather than as the results of valid social research.

Since the early 1960s further changes have taken place both regarding Government policies in respect of housing and the type of dwellings being built (see 2.6), and regarding public attitudes to the private garden. The 1970s have witnessed certain changes in dietary habits in Britain, notably a move towards healthier foods such as wholemeal rather than white bread, and a shift away from many dairy products which medical

research has underlined as hazards to health. An overall interest in "health foods" is also noted in Social Trends(97) (1980). This phenomenon can be regarded as both a reaction to the pre-packed synthetic foods of the 1960s and as a result of the economic constraints of the 1970s. There is also a growing interest in the beneficial effects of exercise such as jogging and gardening. The 1600 per cent increase in the number of people on waiting lists for allotments in 1979 compared with 1969 is further evidence of these trends. Such a change must be regarded as a natural reaction to the affluence of the 1960s just as the decline in interest in home food production, and garden food crop growing, at this time was a natural consequence of the economic stringency of the 1940s and early 1950s. So we can postulate that at present there is again an increasing demand for gardens as a source of home grown food. Rising unemployment and increasing leisure time may also be important determinants of this shift in interest in the garden as a food producer once again.

Thus throughout this century, and especially since World War II, it is possible to distinguish a fluctuating level of interest in the garden as a food producing area. On the other hand the need for garden space as a leisure area and as a site for various household tasks (see 1.4) seems to have remained constant. Furthermore the strong connection between garden provision and owner-occupancy and the status involved in this tenure type is a further factor which has served to maintain a high demand for gardens. The fluctuating level of use of the garden for food production has been partly instrumental in producing a fluctuation in official attitudes concerning

the importance of providing private gardens. However the broader importance of the garden as a functional adjunct to the house and as a status symbol has not altered this century, and thus we can conclude that historically there has been a demand for gardens from around 90% of households, since around 1900 and possibly before. As 1.3 shows this estimate continues to be valid today.

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1.3 SUPPLY AND DEMAND

i) The National Supply of Gardens

Because of the longevity of housing, the total stock at any point in time includes a substantial legacy of earlier building periods. Table 1.1 illustrates the current breakdown of dwelling types and relates these to the period of their construction. This table can also be used to extrapolate the current supply of dwellings provided with private gardens. It is an indication of Central Governments' limited attention to the issue of garden provision that there has been no official census to determine the national supply of garden space. Since it is beyond the resources of the present study to seek to remedy this deficiency, it is necessary to estimate the current supply of private gardens by extrapolation from evidence of house types contained in the National Dwelling and Housing Survey, 1978 (see table 1.1). The market research of Continuum Ltd, and the estimates of Sillitoe's Planning for Leisure, 1969 are also examined for corroborative evidence.

Table 1.1: Types of Property by Age %

	Pre 1919	19-39	40-64	65	All hsholds
Detached	13.0	15.3	17.7	25.9	17.6
Semi Detached	14.2	51.4	45.4	28.1	33.0
Terrace	50.6	25.1	19.1	22.3	28.9
Purpose built flat/maisonette	3.0	5.1	16.5	22.3	11.8
Other flat/rooms	18.7	2.8	1.0	1.0	7.4
Other	0.4	0.2	0.3	0.4	1.2

Source: National Dwelling and Housing Survey - DoE, HMSO 1978 p44

For the purposes of analysis of the current supply of dwellings provided with private gardens, in the absence of any official guidance, we must adhere to the definition of the private garden advanced in the introduction to the thesis.

Therefore a private garden is usually:

- i) an area of land attached to one or more sides of a dwelling;
- ii) private in that it is divided by some means eg hedges, walls or fences, from public roads and pathways and from other similar plots;
- iii) situated in such a way that it provides access to the dwelling to which it is attached.

As has already been indicated this definition cannot cover all eventualities; local variations such as the private gardens with communal access in Sheffield which do not strictly conform to the definition can always be found. A more recent exception to the definition occurs in the case of open plan front gardens which enjoyed a period of popularity in the 1960s and early 1970s. . It is particularly difficult to classify these as private or public space since similar types of provision in the public and private sectors, although identical in layout and appearance, tend to be perceived differently as a result of differing maintenance responsibilities attached to each. The maintenance of open plan fronts in the private sector is usually the responsibility of the householders themselves and thus the space, though not clearly defined as private by the usual boundary fences or hedges, tends to be regarded as private garden space. In the public sector, because the maintenance of these areas is usually the responsibility of the relevant Local Authority, public opinion tends to regard them as communal open

space. However although these exceptions to the definition represent interesting steps in the evolution of garden provision, such ambiguous garden forms are of little significance to the quantitative assessment of the national supply of gardens since they represent a very small proportion of the total garden stock. Furthermore, dwellings with open plan front gardens invariably possess traditional private rear gardens and so the dubious nature of the space provision at the front in no way affects the overall definition of these dwellings as being provided with private garden space.

The one significant exception to the definition of the private garden employed above occurs in relation to terraced housing, especially that built before 1919. Many terraces built according to the nineteenth century bye-laws were provided with backyards which were extremely small. For example the minimum requirement, to which many conformed, was 150 square feet. Although technically these yards fall within the definition, they are largely impractical in terms of the normal uses ascribed to a garden which are discussed in 1.4. They are not for example frequently used for cultivation because of their small size, inadequate lighting and hard surfacing. In the light of this criticism it is suggested that such yards do not qualify as gardens in the assessment of the overall supply of dwellings with gardens. Whilst no information exists concerning the exact proportion of the housing stock which such terraces with backyards represent, extrapolation from table 1.1 suggests that an estimate of around 2-3% of the total housing stock does not seem unreasonable.

Fig 1.3 NINETEENTH CENTURY TERRACES WITH BACKYARDS~ AT TERCLIFFE, SHEFFIELD

scale 1:1250



Many pre 1919 terraces, and most terraces built after this date, are provided with gardens as opposed to yards. An example of the layout of this type of housing is shown in figure 1.4. The garden plots of terraced houses are characterised by the fact that their width is dictated by the width of frontage of the dwelling. For example the difference in garden area between a terraced dwelling of 15 foot frontage and one of 20 foot frontage, each with a typical garden length of 35 feet, is in the order of 25%. Plot depth therefore is the major variable affecting size, though large differences in garden length in terraced housing, whilst not directly affecting the dwelling size, can have a marked influence on density. Since one of the main reasons for building in terraces is to maintain relatively high site densities (say around 20 dpa) gardens attached to terraced houses tend not to be large and usually fall within the range 500-750 square feet. As table 1.1 shows 28.9% of the total housing stock is made up of terraced accommodation, and apart from the small proportion of those which have backyards as opposed to gardens (see above) all are supplied with some private garden space.

The second main category of dwelling type and associated garden is the semi-detached house. A typical layout of these dwellings is shown in figure 1.5. Most semi-detached houses, in contrast to terraces which often only have a garden at the rear, are supplied with gardens at front and back, the larger area of garden usually being located behind the house away from the street in order to maximise the privacy afforded by this location. Gardens attached to these dwellings are generally

Fig 1.4 NINETEENTH CENTURY TERRACES WITH GARDENS~ WALKLEY, SHEFFIELD

scale 1:1250

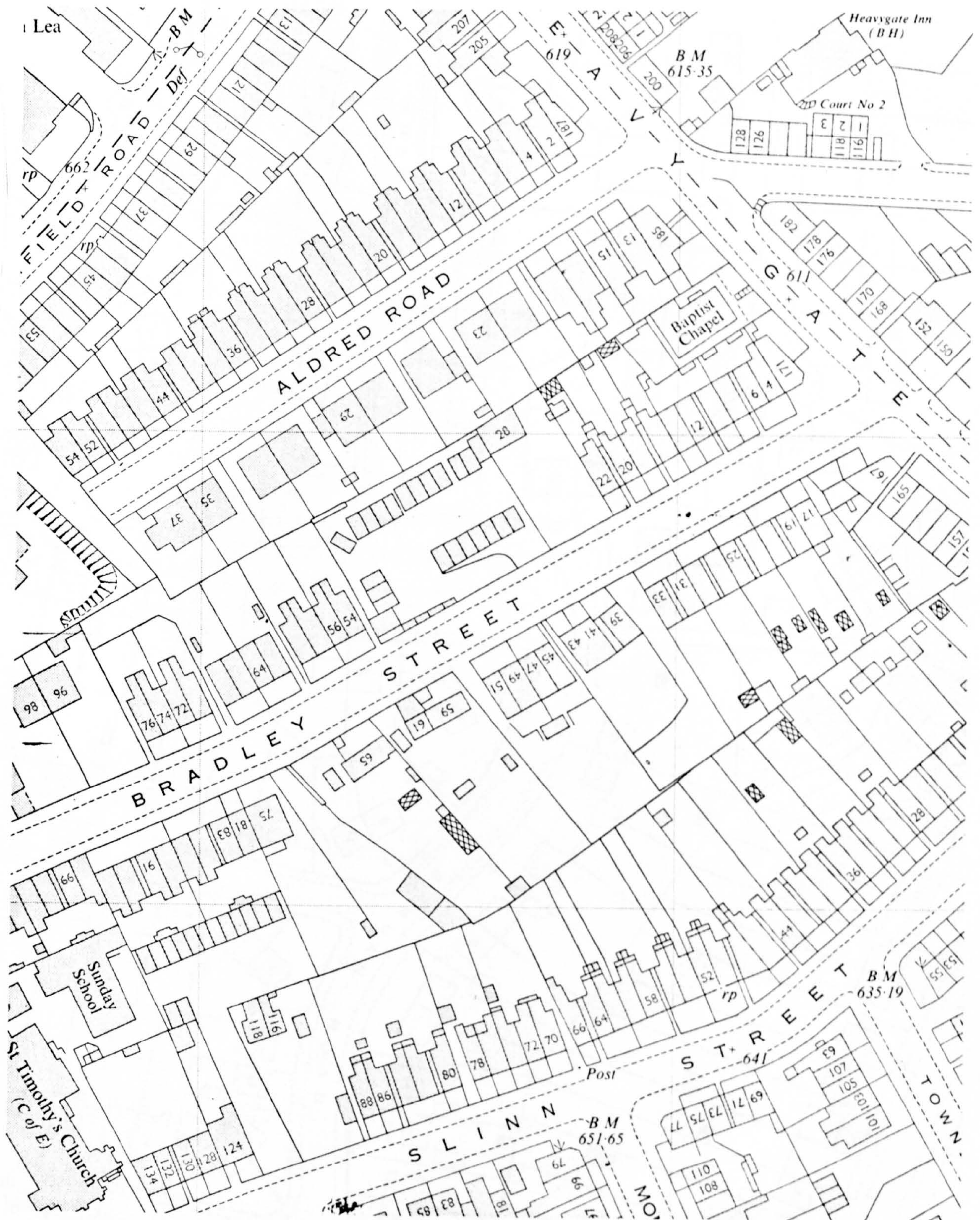


Fig 1.5 TYPICAL SEMI-DETACHED DEVELOPMENT-
CARTER KNOWLE, SHEFFIELD

scale 1:1250



larger than those belonging to terraced houses since in addition to the frontage of the dwelling a strip of ground at one side of each house is included. Typical site densities of around 12 dpa also provide the extra land for larger gardens than are usual with terraces. Semi-detached dwellings, virtually all of which have private gardens, make up the largest single dwelling type in England and Wales at 33% of the total housing stock.

The third major dwelling type provided with a private garden is the detached house. This type make up 17.6 of all dwellings, and are generally surrounded on all sides by their gardens. Of the three house types discussed therefore detached houses usually have the largest associated garden area. An example of a typical layout of detached dwellings is shown in figure 1.6.

The relationship between dwelling size and type and garden size is therefore different in each of the cases cited above. This is reflected in the fact that garden size is usually strongly related to house size in terraced dwellings, less so in the case of semi-detached and, in the case of detached houses, whilst small gardens (eg under 750 square feet) are unusual, the degree of flexibility in garden size is immense. It should nevertheless be noted that the plot size of detached houses does generally bear some relationship to the age and value of the dwelling. For example detached houses built prior to World War II are often surrounded by larger gardens than more recent detached developments. Since this is mainly a reflection of the lower cost of land during the construction period it follows that those detached houses built in the last forty years which

scale 1:1250



are provided with large gardens (say 2000 plus square feet) fall within the top 10% of the residential price range.

As table 1.1 indicates the three house types, terraced, semi-detached and detached, account for almost 80% of the housing stock. On the assumption that few of the remaining 20% of dwellings have access to gardens since they are flats or maisonettes and, as already discussed, many of the pre 1919 terraces do not qualify as having gardens, then an estimate of 75% of the housing stock having access to a private garden seems reasonable. This estimate is generally supported by the Contimart survey (1) which concluded that there was 80% garden provision and by Sillitoe's survey (2) which estimated 70% garden provision.

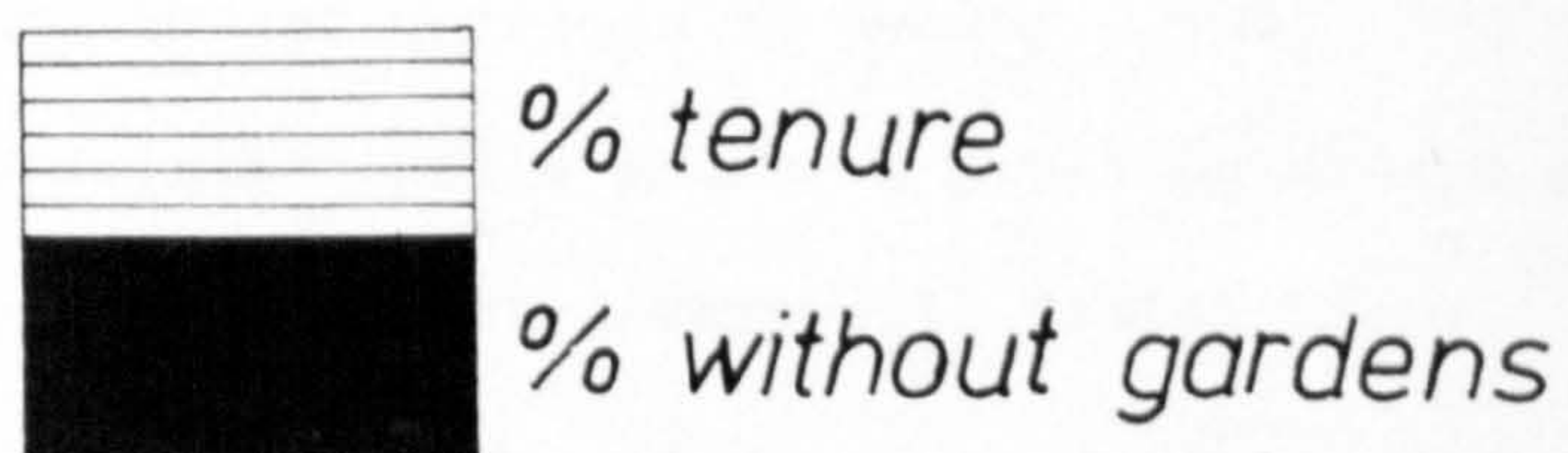
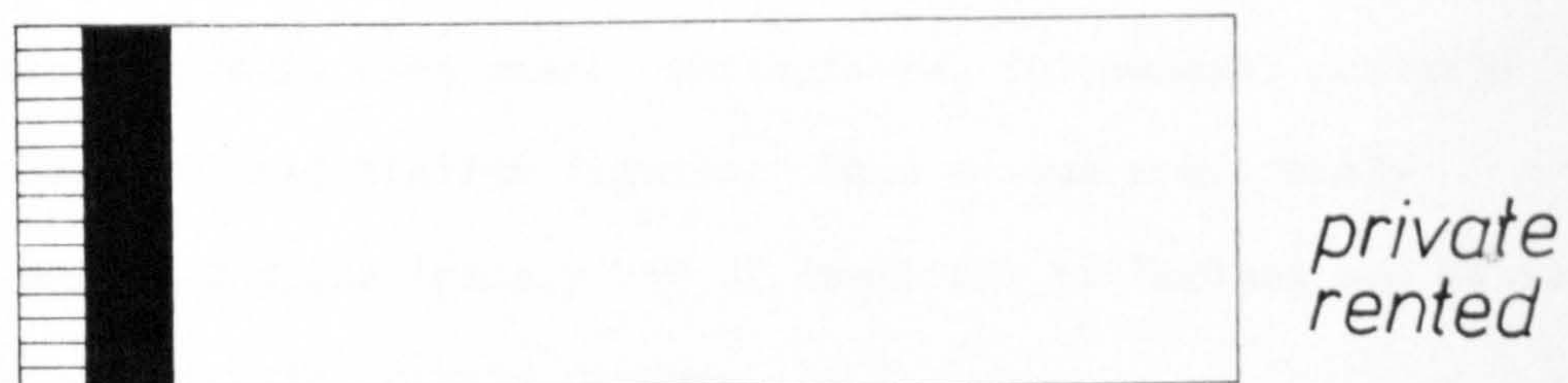
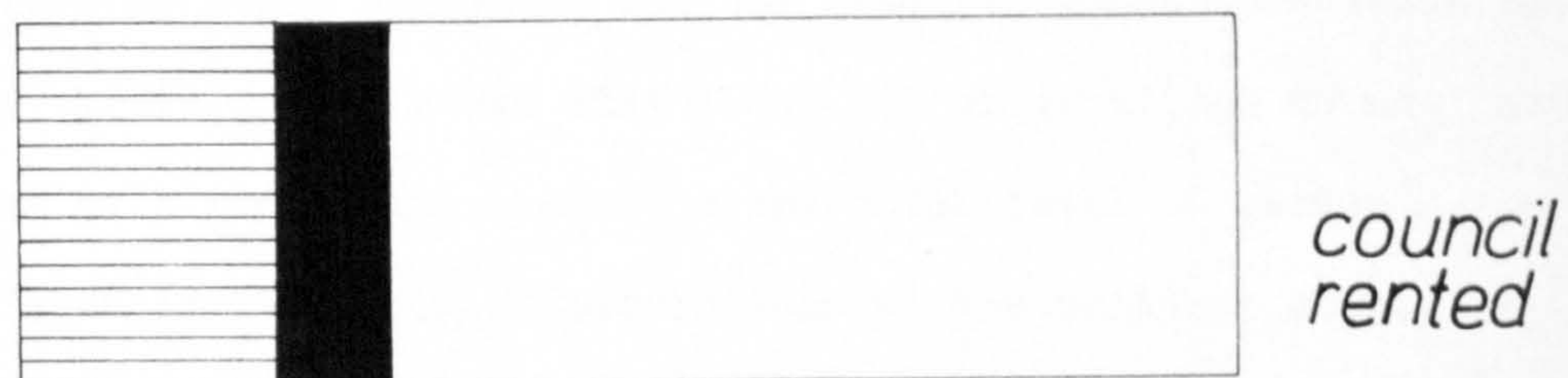
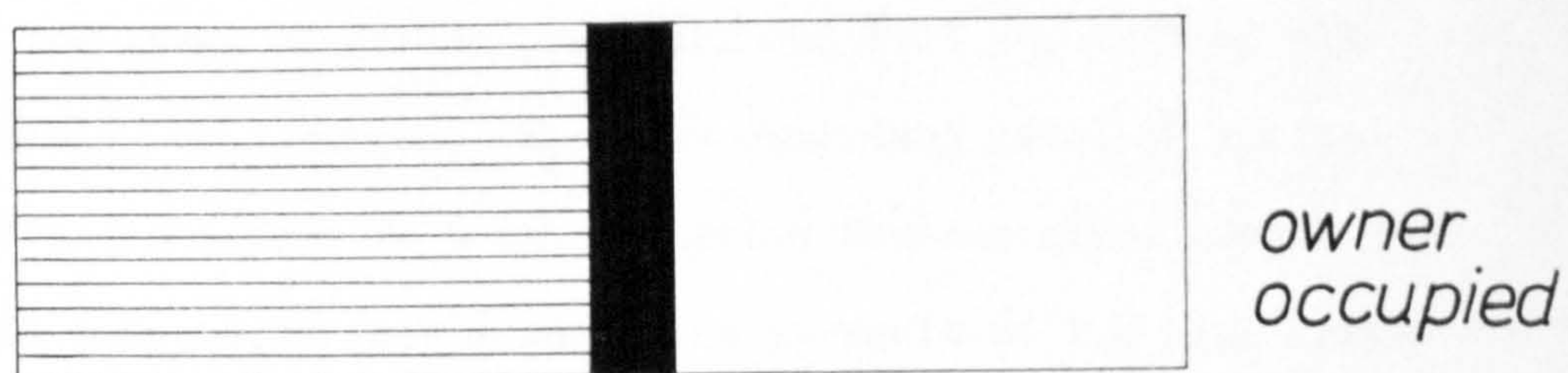
Such estimates do not imply however that provision is uniform over the whole country or that the supply of gardens is shared equally between tenures. Contimart for example showed that Wales and the South-West had the highest level of provision at 87% whilst the lowest level, 58%, was found in the North-West. Similarly dwellings in the countryside are much more likely to have a garden than those in urban areas. Ward and Best (3) put the relative figures at 38% of urban dwellings and 9% of rural dwellings not having gardens. (Their information is based on a social survey of 1944 which estimated total garden provision at 66%. Regardless of the accuracy of their figures the disparity between urban and rural dwellings is surely so large as to be significant). So far as is known no subsequent work has been undertaken to measure this disparity.

The final and most significant disparity concerning supply of gardens is that relating to tenure. According to the National Dwelling and Housing Survey, 1978, 56% of dwellings are owner-occupied, 30% are rented from Local Authorities or New Town Corporations, 12% privately rented and the remaining 2% owned by various bodies such as housing associations, HM forces etc. The vast majority of residents in owner-occupied housing have access to a garden. Houses for sale are almost invariably built with gardens attached and houses, as opposed to flats, are the predominant dwelling type accounting for about 93% of dwellings in this sector. (4)

In the public rented sector the picture is somewhat different. About 30% of dwellings are flats most of which are not provided with any gardens.(5) These flats are not evenly distributed spatially. The majority occupy inner city sites, often to the exclusion of any other dwelling types. Thus there is not only an undersupply of gardens in Local Authority housing as compared with owner-occupied, but there are specific areas of deprivation within the cores of most large towns and cities.

Relative levels of garden provision were calculated by Sillitoe whose results are shown in table 1.2 below. With minor variations these levels of provision agree with my extrapolations from the National Dwelling and Housing Survey. A notable feature is the very low level of provision in the private rented sector. This stems from the very high incidence of flats, many resulting from conversions of former large old houses, and from

Fig 1.7 HOUSING STOCK- TENURE AND
LEVEL OF GARDEN PROVISION (%)



the high level of renting amongst pre 1919 terraces, many of which are only supplied with small yards.

Table 1.2: Proportions of dwellings with private gardens for their sole use

<u>Owner Occupied</u>	<u>Local Authority</u>	<u>Private Rented</u>
87%	78%	43%

Source: Sillitoe K K - Planning for Leisure, 1969, HMSO p51

Since private renting accounts for only 12% of the housing stock this low level of garden provision deprives about 7% of all households of a garden. The most important level of garden deprivation occurs in Local Authority Housing since around 9% of all households lack a garden as a result of the high number of flats in the public sector. Fig. 1.7 shows relative shares of the housing stock by tenure and the level of garden provision in each. Overall this shows that about 24% of dwellings do not have access to a garden and therefore the total level of garden provision is about 76%. Calculations of the national supply of dwellings provided with gardens, based on both the breakdown of house types, and the breakdown of tenure types, produces a similar figure in each case. Furthermore, independent research has also produced similar figures. Thus we can confidently conclude that approximately 75% of dwellings in England and Wales are provided with private gardens.

ii) The Demand for Gardens

Having considered the national supply of gardens, it is necessary now to turn to the question of demand. What proportion of the population would prefer a dwelling with a garden to one without? Does such a desire vary with social class,

family size or any other variable? All these questions are central to this thesis, but they are by no means easy to answer. It might seem that the most straightforward way of shedding some light on these points is to undertake an attitude survey and ask residents whether they would prefer a garden or not. Indeed to some extent this might prove to be a reasonable method. However there are certain difficulties attached to such a survey.

a) Social Survey Evidence

Many surveys, several of which are discussed later, base their findings on observed usage of gardens by residents. Although the high levels of activity observed are possibly indicative of high demand for gardens an alternative way of discovering whether people generally prefer dwellings with gardens would be to use a questionnaire survey. Although in theory this would produce a much more accurate picture of demand than would an observation survey, since by its very nature an observed survey does not include people who have no gardens, there are problems associated with this type of approach. These stem from the fact that the possession of a garden cannot be considered in isolation from other factors such as location, density, access to transport and income. Access to a garden usually requires a suburban location, implicit with which is increased distance to central facilities and increased travel costs both in time and money. Hence, a survey of residents without gardens on an inner urban site might elicit a 100% response in favour of private gardens, but only on the basis of all other

variables such as access to the centre remaining constant.

This is well illustrated in table 1.3 below:

Table 1.3: Demand for Gardens and Locational Preferences

	N	%	
Family Households	84	61	Desire a garden
	54	39	Prefer a suburban location
Adult Households	62	59	
	42	41	
Elderly Households	30	61	
	19	39	

Source: DoE - Design Bulletin 25 - The Estate Outside the Dwelling, 1972, HMSO p 148

Here for example 61 per cent of family households expressed a desire for a garden, but only 39 per cent were willing to move to the suburbs to obtain one. That residents do not consider the full ramifications of their expressed desire for a garden is immediately apparent from this example and serves well to illustrate the difficulties involved in estimation of demand for gardens by means of questionnaire surveys.

A second difficulty can also arise from the nature of the survey undertaken. For example there have been numerous social surveys both in the UK and abroad which have attempted to assess residents' reactions to high density living. (6) During such research the question of satisfaction with amenity space provision is usually examined, and frequently desires on the part of residents for private garden space are expressed. Such information should however be treated with caution since once again the subject is

perhaps more complex than it appears at first. It is difficult to separate elements such as dissatisfaction with high rise living and dislike of public open space provision from such features as desire to live in a conventional house and demand for private garden space. All such variables are dependent both upon each other and upon the degree of experience of different forms of living of the respondents. An expressed preference for a garden may in reality be more an expression of dissatisfaction with flat living and a demand for a conventional house, the garden being regarded as a natural consequence of such a move. Similarly an expressed dislike of public open space provision in a high rise development may be more an expression of dissatisfaction with high density living than a criticism of the open space itself. Since a preponderance of public amenity space is usually associated with high density developments it may be presumptuous to accept at face value figures relating to an expressed "desire for a garden". Nevertheless bearing such pitfalls in mind there have been some surveys which can provide a reasonable estimation of demand.

A useful piece of research into peoples' housing preferences was carried out by Milton Keynes Planning Directorate in 1975. (7) This avoided the problems outlined above, by the use of a "housing priority evaluator", a trade off game where residents expressed their desires for features such as larger or smaller gardens by relating to the increase or decrease in rent which would result from such

changes. Of the fourteen aspects of housing design studied the garden was one of the three features most often mentioned as of importance and in need of improvement. All the houses in the study were provided with gardens but between a third and a half of all families considered them too small. All of the residents questioned expressed a desire for some garden space however small. Using the Milton Keynes work as a model, a similar exercise producing very similar results was carried out in Sheffield in 1975. (8) The conclusion which must be drawn from the results of both these pieces of work, therefore, is that demand for private garden space is universal.

It has already been shown in 1.2 that around 90% of households during the first half of this century would have preferred a garden if given the opportunity of access to one. More recent research corroborates this figure. For example Peter Self commented in 1958;

"successive social surveys have shown that anything from 80-90% of the working population will plump for the house (rather than a flat) if the rents are the same." (9)

This figure is corroborated by Blowers' study of the North Kenton estate in Newcastle. (10) This is a mixed development of flats and houses. Almost all the families with children living in flats who were interviewed wished to move to a house with a garden and 91% of the population overall showed a preference for a house to a flat or maisonette. Apart from suggesting that the overall level of demand for garden space is very high, this latter study also illustrates another important feature of demand,

namely that demand does not appear to differ significantly between tenures. The North Kenton estate is entirely Local Authority owned and yet its residents display a marked preference for garden provision. The number of Local Authority residents, who were observed to use their garden for some purpose in the studies discussed later (see 1.4 - well over 90%) also supports this. As far as owner occupied housing is concerned the vast majority (around 90%) have access to gardens, very few of which appear to be completely neglected by their owners.*

The second important point illustrated by the North Kenton study is that the desire for gardens is strongest amongst families with young children. This is entirely supported by the conclusions concerning childrens' play and adults' attitudes to its importance, cited later. (See 1.4) However whilst approximately 20% of all families have dependant children under nine years of age (11) demand for gardens from families appears to stem from far more than this number. Stone for example comments;

* The evidence for neglect of gardens is sparse and probably unreliable. For example Ward and Best discuss two Government sponsored social surveys, one immediately pre World War II and one in 1944. The relevant tables each show categories including 'Crops grown - nothing' and 'Houses with uncultivated gardens'. The respective figures are 9.8% and 21%. Considering the rise in the level of cultivation generally during the war these figures should be treated with caution if not dismissed altogether. The only other evidence is provided by the Bournville Village Trust who assessed 17% of the gardens in their survey (1941) as being in poor condition. (See 1.2) Generally, however simple observation serves to illustrate the very small number of gardens amongst all tenures, which are neglected. All of the above surveys relate to gardens in all tenures.

"...it would appear from opinion surveys and the reports of housing managers that not more than 20% of families would find a flat a fully acceptable alternative to a house." (12)

Since families (defined as married couples with or without dependant children) account for nearly 70% of households, then according to Stone's estimate, 55% of households positively want garden space. But Stone does not take into account households made up of single and elderly people and groups sharing houses. No estimates are available for such household types separately, although Self's conjecture that 80-90% of "the working population" would choose a garden all else being equal, evidently includes such households. Self's figures are supported by Burbidge (13) in a comprehensive review of research ten years later.

So on the basis of the social survey evidence currently available a reasonable estimate of the overall level of demand for private garden space must be between 80-90% of all households. The core of this demand comes from families with young children who all need gardens, but most other households also require them. When the evidence of the observed usage surveys is considered and the range of uses of the garden taken into account then this high level of demand is easily understandable.

It is however perhaps not sufficient to derive an estimate for the demand for garden space solely from social survey evidence because of the problems related to this research method which have been outlined earlier. Consequently consideration of other factors especially the demand for allotments might also assist in clarifying this issue.

b) The Demand for Allotments

An allotment differs from a private garden in that by definition it cannot adjoin a dwelling house. In this respect then the allotment must be regarded as different from the private garden, and consequently demand for private gardens cannot be taken as a direct representation of demand for allotments. Despite this, allotments and gardens do share several common features in terms of size and use. Strictly speaking an allotment must cover more than a quarter of an acre. If it is less than this size it is an allotment garden. (14) For the purpose of this discussion, which is mostly concerned with allotment gardens, both will be termed "allotments". In general the average provision of allotment plots per acre is around sixteen, so we are discussing areas of ground roughly equivalent to a large private garden. (15)

Also, whilst the private garden is probably more versatile in the number of uses to which it can be put, there is no exclusive function related to the allotment which is denied to the owner of a garden. Hence it is reasonable to regard allotments as a subset of gardens, rather than as either direct competitors in any sense, or as the means of fulfilling functions which are impossible in gardens.

Since all Local Authorities are empowered to provide allotments and as a result keep a record of the waiting list for them, an analysis of the waiting list should prove a useful indicator of demand for private garden space. The national waiting list stands at over 120,000 at present (1979) according to Friends of the Earth. (16) This

represents a 1,600% increase over 1970 and far exceeds the decline in the provision of allotments during this period. Also it is reasonable to assume that a large number of people desirous of private garden space do not have their names on any official waiting list. It is possible to argue that since the vast majority of allotments are used solely for cultivation, they represent merely an extension of interest in this aspect of private gardens. However, the sheer number of people involved in the allotment movement, around a million (17) only serves to emphasise the demand for private outdoor space, which if it were attached to the dwelling in the form of gardens would satisfy this demand better than allotments separated from the dwelling. My own research also suggests that an overwhelming number of Local Authorities have a substantial waiting list for allotments, as is shown by table 1.4 below:

Table 1.4: Local Authorities with waiting lists for allotments

	Waiting List		No Waiting List		No Response	
	N	%	N	%	N	%
Metropolitan District	13	76	1	6	3	18
Shire District	20	77	2	8	4	15
London Boro	19	90	0	0	2	10
Large City	8	100	0	0	0	0
New Town	5	56	0	0	4	44

The allotment movement has itself experienced varying levels of popularity. During the war years when home-based food production was of major importance every available scrap of waste land and playing fields was turned over to

use as allotments. Throughout the 1950s the number of allotments gradually dropped as a result of declining interest in allotment food production. In the 1960s the movement was at an all time low as a result of a combination of several factors. Increasing affluence undoubtedly took its toll of allotments, but equally important, the desire by developers to build on allotment land greatly reduced the supply, and this was not hindered by the lethargy shown by both Central and Local Government in maintaining the supply of allotments.

In 1969 the Thorpe Committee reported on allotments. The survey carried out by the Committee showed that by far the greatest demand for allotments in the past had come from older working class men especially those who had retired. (18) The tremendous upsurge in demand for allotments since 1970 has however come from a different sector of the population. Riley suggests that the increase has mainly stemmed from those in white collar jobs and the young. (19) If this is true, and it seems likely considering the size of the increase, then it indicates an important new trend which has implications for the demand for gardens. Whilst an upsurge in demand for land for food production may not increase the overall level of demand for gardens, which has in any case been shown to be high, at around 90% of households, it may have implications for the size of garden plot demanded. A vegetable plot in a private garden is not generally an area which can be used for several purposes as can a lawn, thus any increase in demand for space to cultivate vegetables

may not be easily satisfied by small gardens. (For further information on garden size see 1.4.)

iii) The Relationship of Supply to Demand

The national supply of gardens can be estimated with some degree of confidence at about 75% of all dwellings. This is however not evenly divided between tenures. The studies of demand have shown that families with young children almost all require access to a garden and so ~~those~~ families who live in council flats or in privately rented accommodation are likely to suffer. These families too are likely to be concentrated into distinct areas spatially since council flats and to a great extent private rented accommodation tend to be located in the inner areas of towns and cities. Thus we can broadly pinpoint areas of garden deprivation. Owner-occupied houses without gardens (usually pre 1919 terraces) also tend to be located in similar areas.

The overall level of demand for garden provision is more difficult to establish than the supply but several commentators agree in putting it at between 80 and 90% of all households. Thus it would seem at first glance that supply falls short of demand by about 10%. There is however one crucial factor affecting the distribution of gardens amongst households, namely the ease of residential mobility, which restricts the supply of gardens to those in greatest need, and produces an even greater shortfall in supply. This problem is best illustrated by an example. For instance a couple might start their married life in a flat, having little desire or need for

a garden, then move to a house with a garden when they had children, and then once the children had grown up and left home, move back to a flat, since they then perceive less of a need for a garden. This might seem a logical progression, which if followed by the majority, would ensure that the present supply of gardens nearly matched demand. This progression from one dwelling type to another however does not appear to be the case in reality. Census data (20) reveals that although households are fairly upwardly mobile, once they have established themselves in a house with a garden which suits their maximum family size, they do not tend to move into smaller accommodation when their household size decreases. Table 1.5 shows this clearly:

Table 1.5: Reasons for Moving House by Tenure

	Owner-occupied	Local Authority	Private Rented
House too large	2.0	6.2	1.2
too small	15.1	11.2	17.9
Poor amenities	2.5	2.5	10.7

Source: OPCS - General Household Survey, 1973. HMSO p148 ff.

Coupled with Table 1.5 the fact that

98% of under 25's had lived at their present address for less than 5 years;

85% of 25-29's had lived at their present address for less than 5 years;

but only 19% of those aged 60 plus had lived at their present address for less than 5 years

supports the view of very limited residential mobility from family dwellings (ie homes with gardens) to non-family dwellings (possibly without gardens). The Census data also reveals that Local Authority tenants and owner occupiers display similar patterns of movement. At first glance one conclusion which could

be drawn from this information is that a large proportion of households occupy dwellings with gardens which they may not particularly need, thus restricting the opportunity for those families who do require gardens from gaining one. However this may be an erroneous conclusion in one sense. Research into the uses of the garden and the importance attached to it by residents, which is discussed later (see Section 1.4), shows that although childrens' play in the garden is considered important, the garden is useful for a variety of other functions as well. Thus although a household may not require its garden for the children it may still genuinely require it for other purposes such as cultivation or drying washing. Nevertheless the restrictions on residential mobility imposed by the one way shift from small to larger accommodation do produce a situation where demand for gardens outstrips supply, especially in Local Authority and private rented housing. Add to this the conclusion that such deprivation generally occurs in specific locations and it becomes apparent that there may be identifiable causes and possible policy-derived solutions to the problem. These are issues discussed at greater length later in the thesis.

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1.4 THE CURRENT FUNCTION AND IMPORTANCE OF THE GARDEN

i) Research Method

The previous chapter outlined the general framework of supply and demand for gardens. This chapter examines the role of the individual garden and the attitudes of residents to space provision within the housing area. The analysis draws mainly on research carried out in the last twenty years. It was considered beyond the resources of the present study to undertake a social survey of residents preferences, or an observation survey of the uses to which gardens are put. To reach any valid conclusions would require a large sample of several estates in differing locations and a study extending over a long time period. In addition, the difficulties of extrapolating information regarding residents' preferences as regards garden provision were recognised and have already been outlined in 1.3.

Fortunately the garden has been the object of interest for a number of researchers in recent years. Their studies differ both in emphasis and methodology. In particular, we have to distinguish between studies of observed usage, which can explain what garden users actually do in their gardens, and social survey methods, which seek to elicit residents' views and perceptions regarding the desirability of garden provision. Several studies do however employ both methods in an attempt to present a fuller picture of garden requirements. The various studies differ also in the sample size used and in the types of tenures they examine. This variety is, however, helpful for the purposes of this thesis since it allows us to derive a

global view rather than one restricted to individual tenures.

The main pieces of work under examination are as follows:

a) Private Gardens - A Review of Sociological Research - MoHLG

1966. This takes the garden as a focus employing the findings of twelve other surveys concerned with general housing matters to assess garden usage and residents' attitudes to garden provision. The surveys cover all main tenures.

b) Gardens on Housing Estates - Cook J A in Town Planning Review

1968. This is a survey of user attitudes and behaviour on seven layouts of Local Authority housing in varying locations. The study recognises that official orthodoxy had, by 1968, shifted away from cultivation as the main raison d'etre of gardens and that the increasing need for space to accommodate vehicles and for communal play areas, together with increasing land costs, were pressures which might lead to a reduction in size of gardens in future developments. Cook's work therefore attempts to assess the importance of the garden to residents by means of a questionnaire survey. His work is unique in that the original research was specifically concerned with gardens. The MoHLG survey (see above) had gleaned information about gardens from more tangential sources, as did the follow-up study in 1972. (See below.)

c) Private Open Space - Bradley J, for DoE, 1972. This study

was based on the evidence from three previous layout surveys carried out by the DoE, all of which looked specifically at Local Authority built estates. Apart from gardens it considered the importance of balconies, concluding that

these are important in high rise developments, sharing many similar functions with gardens, but that overall the balcony is a poor substitute for a private garden.

Overall the quality of these three research projects is good and the results are for the most part consistent with one another. The only notable exception to this generalisation is the question of garden size, which is discussed more fully later.

d) Shared Open Space in Scottish Private Enterprise Housing - Architecture Research Unit at Edinburgh University 1972.

This work considered the reverse of the coin, and set out to evaluate the importance and uses of communal open space as opposed to private garden space. As such its results are directly relevant to the other surveys and in some cases provide strong corroborative evidence.

These four reports deal specifically with private and public space provision. In addition there are several 'garden related' research reports which provide some insight into residents' views on gardens. These date from roughly the same period and stem from the research interest in high rise and high density developments, which in turn resulted from the high level of discontent felt by residents in many such schemes. The main reports are:-

a) High Density Housing - A Social Perspective - Burbidge M
1969 (unpublished)

b) Housing: The Home in its Setting - Adams B and Noble J in
Architects Journal September 1968

c) Density and Residents' Satisfaction - Smith R and Burbidge M
1973 (unpublished)

d) Flats, Families and the Under-Fives - Gittus E, 1976

Routledge and Kegan Paul

Also useful is Planning for Leisure - Sillitoe K K, 1969, HMSO.

This latter study forms part of a National Recreation Survey which inter alia tabulates leisure activities by time spent engaged in them. References to the garden in these tables are a useful measure of its importance both in relative and absolute terms.

Although Cook (1968) and DoE (1972) base their findings exclusively on work carried out on Local Authority layouts, MoHLG (1966) covers all tenures within the twelve surveys it draws on, and the Architecture Research Unit (1972) study is based solely on private enterprise housing. Burbidge (1969), Adams and Noble (1968), and Smith and Burbidge (1973) all consider exclusively Local Authority housing whilst Sillitoe's (1969) survey covers all tenures. Overall this corpus of material provides a useful mix of information on which to base conclusions regarding differences in attitudes to garden space between tenures.

ii) Usage of Private Gardens

In considering the garden Ward stated:

"I am thinking of the garden, not only for horticulture and food production, but as an outside room, a place where washing can be hung out to dry, mats shaken, motor cycles taken to pieces, things not wanted in the house dumped, and young children deposited with safety." (1)

Such uses of the garden are indeed generally assumed to be commonplace. Ward's comment however lacks an element of quantification. For example, what proportion of people use their

gardens for these and other uses?

The studies mentioned above go some way to providing an answer to this question. Table 1.6 shows the findings of three studies into the use of gardens on Local Authority estates and establishes a framework giving frequencies of use for a number of activities. In each case, both observation and questionnaire surveys were used. Although other studies are not so comprehensive and so similar tables cannot be constructed, their findings with regard to individual uses are generally in agreement with those shown in table 1.6.

Table 1.6: Proportion of Residents Using Their Garden for Each Activity+

<u>Activity</u>	<u>LCC</u>	<u>West Ham</u>	<u>Prestonpans</u>	
Drying Washing	92	100	95	(percentages)
Cultivation	97	92	32	
Sitting Out	86	79	77	
Childrens' Play	42*	46*	66*	
Making or Mending	32	10	18	

+ All dwellings are rented from Local Authorities

* These three figures are not directly comparable because of varying survey techniques.

Source: MoHLG - Private Gardens - a review of sociological research
1966 p 1

Each of the uses tabulated above is discussed in detail below in order to give a background to the discussion of optimum garden size which follows on page 116

a) Drying Washing

"Drying washing was the most important use of the outdoor ground space"- DoE Research Report (1972)

"There is a continuing demand for outdoor drying

facilities from most households." - Architects
Journal (1968)

There is a general consensus that the most important function of private open space is to provide an area for drying washing. This not only applies to garden space but also to balconies when no private garden is available. The DoE study suggests that usage of garden space for clothes drying bears no relationship to garden or household size (2) though Cook notes a small proportion who found their gardens too small to perform this function adequately. This is possibly a result of clothes lines taking up a large proportion of available space, thus denying the opportunity for further activities such as childrens' play, or a result of efficient screening around gardens producing pockets of still air in which clothes are slow to dry. (3)

Recognising the need for drying space (as part of their wider project on the layout of housing) Adams and Noble commented;

"...outdoor drying has the advantage of costing the housewife nothing and many consider that clothes dried out of doors are more fresh than those dried indoors. We suggest therefore that all dwellings should have either individual or shared outdoor drying space." (4)

There is however, an obvious security problem connected with communal drying facilities, which in certain circumstances may strongly inhibit their use.

Despite the conclusion cited earlier that usage of garden space for clothes drying bears no relationship to garden or household size, attempts have been made to quantify space needs of this activity and define minimum

standards. The Architects' Journal (1968) recommended sufficient space to take a full load of washing, that is forty feet of line within twenty feet of the kitchen on the same level. For smaller households space for at least twenty feet of line was advocated. These standards are echoed in the DoE examination of standards in 1976 (5). However, reasonable as they sound, these proposals have never been strongly recommended since they preclude large scale flat building or at the very least demand the provision of expensive large balconies in flats.

b) Cultivation

The cultivation of private gardens, whether for food or flowers, is at the heart of the traditional view of the English garden. The importance of cultivation in the garden throughout the period leading up to the Industrial Revolution and beyond has already been noted. (See 1.2) Moreover, in the more recent past, the value of private gardens as basic food producers was greatly enhanced during the Second World War and its immediate aftermath. (6)

As table 1.6 indicates, an extremely high proportion of residents in two of the survey areas were actively involved in cultivating their gardens. In the third area, Prestonpans, the much lower participation rate in gardening is presumably attributable to the form of the dwellings, which were patio houses with a very small amount of garden space, a good deal of which was paved over. The findings of the MoHLC are to some extent supported by the latter DoE study which states that;

"...two thirds of the housewives who were asked said that they used their outdoor ground space for growing flowers and plants." (7)

Sillitoe (8), however, provides more conclusive evidence for the importance of gardening as a leisure pursuit. According to his extremely wide ranging study of recreational activities, gardening comes second only to television viewing as the most common leisure pursuit of both men and women, regardless of age, tenure or location. There are of course marked seasonal differences in the distribution of time allocated to gardening, as well as a fairly well defined pattern of increased interest after marriage and especially as age increases. Indeed interest in gardening is seen to increase steadily after the age of 31 whilst the proportion of the population having access to a garden remains fairly constant. By the age of 61 gardening ranks as almost as important a leisure activity as television watching for men. Sillitoe also notes differences in the level of gardening activity between different socio-economic groups but suggests that;

"...the most probable reason for the socio-economic difference in gardening is that the top groups are more likely to have a garden."

In fact Reynolds noted that 91% of social classes AB have access to a garden as opposed to only 68% of social class DE (9). Therefore it is probable, as Sillitoe suggests, not that the lower socio-economic groups are less interested in garden cultivation but simply that their lower participation rate is due to their not having access to gardens at the same rate as higher groups. This differential can in turn only be a reflection of the diverse quality of housing and of the tenure system.

The general level of interest in garden cultivation throughout the population is high, as evidenced by the diversity and popularity of publications on gardens and gardening programmes on TV and radio. For example the circulation figures for the top five gardening publications, (British Rate and Data lists 13 in all) total well over half a million. Also the BBC estimate the following audiences for their gardening programmes (November 1979):

- i) Radio 4 Gardeners Question Time (Sunday 2.00pm) 400,000
- ii) Gardeners World (Friday 6.55pm) 700,000 (BBC 2)
- iii) Mr Smith's Gardening Programmes (Wed/Thurs 7.05pm)
500,000 (BBC 2)

(Generally audiences for early evening programmes on BBC2 range from 100,000 - 700,000. Sunday afternoon audiences on Radio 4 average around 250,000) (10)

c) Adult Leisure

Table 1.6 indicates that the use of the garden by adults for sitting out was the most frequently stated use, a level of around 80% being common to the three survey estates. Other research comments that;

"...sitting out was a popular activity with half of the housewives." (11)

No further firm figures are offered by the other studies though Cook comments that;

"The prevalence of sitting out is evidently unaffected by age." (12)

Adams and Noble also conclude that;

"...the greatest contribution to adults leisure activities within the housing area is a private garden, terrace or balcony, for sitting out and having meals." (13)

This study relates solely to the built form of the housing area. TV watching, established elsewhere as the greatest consumer of leisure time, is therefore not considered. However, although this survey is in accord with that of Sillitoe in isolating the garden as the second most important recreational resource in the home, the actual uses specified differ, Sillitoe citing gardening, whilst Adams and Noble cite sitting out and having meals. Such an anomaly is probably the result of different definitions of work and leisure between the two surveys, or the result of different layouts within the sample. A patio garden for example would normally require much less cultivation and would possibly be used more for sitting out because of the enhanced shelter provided by the dwelling. Indeed the incidence of use of gardens for sitting out is bound to be a function not just of size but of several other factors such as orientation and degree of sunlight, privacy, and time of year. Overall there appears to be a strong case for garden provision with sitting out in mind. Adams and Noble go so far as to recommend standards of 50 square feet for larger households and thirty square feet for smaller ones to accommodate sitting out. There is possibly a case for the acceptance of such standards but in a refined form in order to take into consideration factors such as orientation, views, privacy and the adequate provision of sunlight and daylight, which a simple standard such as 50 square feet does not include.

d) Childrens' Play

The subject of providing for childrens' play in the design of residential areas has traditionally commanded much more attention in planning circles than has the private garden per se. Perhaps the most notable contributions have been those of Lady Allen in Planning for Play (1968) and Elizabeth Gittus in Flats, Families and the Under-Fives (1976), but there are many other books, reports and articles including several very useful Scandinavian works. (14) The private garden has emerged from every relevant study as an important area for childrens' play. For example the DoE study comments that;

"...gardens were said to be a well used play space, and for many toddlers the garden was said to be the main play space." (15)

However Adams and Noble point out that;

"...most medium and high density schemes built today do not make adequate provision for toddlers' play." (16)

Immediately therefore we note a conflict between the desired level of usage and the present level of provision. Indeed at an early stage in the development of Radburn, New Jersey, Clarence Stein, the architect, noted that small children tended to avoid the purpose built play areas and play within sight of their mothers' kitchen windows. (17) The idea that mothers prefer younger children, at least, to play in close proximity to the dwelling frequently occurs in the research literature. Thus providing for play is a more complicated matter than simply providing communal play areas. It is necessary to establish what are the play

needs of the various age groups and to attempt to tailor space provision accordingly. In this respect it is usually the youngest age group, the toddlers, who are most in need of a play area close to the dwelling, and in terms of ease of supervision and security this is best provided in the form of a private garden. Cook sums up this situation by commenting that;

"...it is the behaviour of the youngest children, who may have fewer alternative locations for play than their seniors, which is most influenced by garden size.....where older children are concerned however, it appears that the garden is seldom used for play even when completely laid down to grass." (18)

Presumably older children are sufficiently adventurous to search out other areas for play, whether purpose built or not. Neither is it necessary nor desirable that they constantly be within range of supervision.

The garden therefore is shown by the available research to be a vital venue for play for small children (up to five or six years old) but to be not so well used by older children. However it is not without significance insofar as expressed demand is concerned, that adults tend to regard the garden as an important play venue for children of all ages. (19) The studies of garden usage cited in table 1.6 suggest that gardens are well used by children but clearly do not show that play outstrips all other uses in terms of frequency. However if parents and prospective parents regard the garden as an important play area for children of all ages then the demand for houses with gardens will in fact be much higher than the simple number of families with young children under five.

Bearing the research evidence on gardens and play in mind Adams and Noble comment;

"...we think that private enclosed outdoor play space should be attached to each family dwellingchildren should be able to circulate freely between the dwelling, a safe private open space and communal open space and play areas. The dwelling should therefore preferably be on the ground, have a garden and lead on to a reasonably safe communal area." (20)

In this way the play needs of children of all ages would be satisfied.

e) Other Uses of Garden Space

Table 1.6 includes a category of garden use entitled "making or mending". The activity rates here vary from nearly one third of residents to a tenth. This is the only piece of quantified evidence available with respect to this sort of use of the garden. Such uses are presumably short in duration and sporadic in occurrence so any measurements of frequency must necessarily be viewed with caution. Nevertheless the importance of the garden as a location for all sorts of household tasks and odd jobs unsuitable for undertaking within the dwelling must not be underestimated. The amount of discussion of these more infrequent but nevertheless important uses of the garden in the research literature is tiny. None for example make any reference to the usefulness of the garden as a place for keeping or exercising many kinds of domestic pets. Similarly only the DoE study (21) investigates the use of the garden for storage, and only then because that study includes an investigation of the use made of balconies, which were frequently mentioned by housewives as an important storage area. In fact the

survey found that under a fifth of housewives used their gardens for storage whilst the percentage of housewives using balconies for storage was much greater, varying from 25-66%. It may be that balconies are preferable for this purpose because of the degree of security they afford, but it could be the case that the generally restricted floor space of flats makes it essential to use the balcony as extra storage space.

Besides such prosaic uses as those outlined above, however, the garden has a social and psychological importance to the resident which extends far beyond the readily identifiable functions outlined in the research already examined.

iii) Further Aspects of Residents' Perceptions

a) Psychological Factors

The purpose of the discussion which follows is to examine the more intangible aspects of the garden's importance. The research which has been examined so far is notably lacking in its consideration of such criteria, the one exception being Cook's work which includes some discussion of the garden as a status symbol. He makes the point that:

"As is well known, tenants differentiate sharply between estates or parts of estates, often seeking to move to areas of reputedly better standing, and it could be that the garden plays a significant role in the assumption of status among residents, since among domestic possessions only the motor car and the exterior of the house are as visible to neighbours." (22)

Although Cook has no concrete evidence to support this judgement, it seems plausible enough. A host of variables

were recognised and studied by Fortune in a study of the factors affecting house prices in Sheffield, but beyond a recognition that the garden might be a further variable affecting price, no firm conclusion linking garden provision to selling price was established.(23)

Other researchers have ascribed further important psychological attributes to the effect of having access to a private garden. Wood has associated the development of "a family's...sense of group pride" with ownership of a garden, (24) whilst Cooney remarks that the garden is a "focus of observed activities from which competitive feelings can grow", leading to high standards of care and shared interests with neighbours. (25) In relation to this latter point Westergaard points to the garden as a symbol of social status and personal and civic virtue. (26) Overall the garden is viewed as having a stabilising influence both within the family and between neighbours, by providing a focus for shared interests and encouraging communication.

A further aspect of the psychological function of private garden space is discussed by Newman (27). In his study of the effect of differing environments on urban crime rates in New York he stresses the importance of zones which are immediately perceivable as points on a scale ranging from private to public. A central tenet of Newman's hypothesis is the idea that the criminal, in trying to gain access to a dwelling in order to commit a criminal act, will be discouraged if he has to pass through an area which he perceives as private. The reasons for this reluctance to

enter such a zone of "defensible space" are both practical and psychological. They mainly centre around the danger of being noticed by neighbours and reported to the police. This outcome is far more likely, argues Newman, when the offender is operating in an area generally defined as private, such as a private garden, than when he is simply occupying a communal lobby or balcony where strangers are commonplace. Although Newman's research was concerned in the main with high rise blocks and with more complex design problems than the simple provision of an area of defensible space adjacent to each dwelling, his general principles strongly support the provision of an area of private open space around conventional dwelling houses. This is not only because he sees "defensible space" as a powerful deterrent against crime involving the property, but also because:

"The single family house set on its own piece of land, isolated from its neighbour by as little as six feet, has been the traditional expression of arrival in most every Western culture. It is the symbolic token of having a stake in the social system..." (28)

Here once again we return to the concept of the garden, or at any rate the house and garden, as a common status symbol in a competitive society. In England and Wales this concept is demonstrably validated by the fact that the vast majority of owner-occupied dwellings (over 90%) are provided with private gardens. Thus there is a strong association between the status of home ownership, having a "stake in the social system", and the possession of a garden.

Newman's general hypothesis concerning defensible space has been the subject of criticism, in one case as a result of empirical research carried out in Sheffield by Mawby (29). Whilst criticising certain criminological aspects of Newman's work, Mawby does admit that a private zone around a house might provide a psychological barrier to a potential thief, but he also adds that the use of such a zone for storage might provide an encouragement to the criminal. Garden fencing and screening can also provide a positive advantage to the thief, since once entry to the garden is made the fences can obscure the actual act of housebreaking. So the "defensible space" qualities of a garden may create more problems than they solve. Thus Mawby concludes;

"...one could, using this criteria in combination with the point made earlier about offences in gardens, turn Newman's theory on its head." (30)

Where then does this leave us in our assessment of the less tangible benefits of the private garden? Perhaps the most important conclusion which must be drawn is that there is a marked lack of research on the subject of gardens per se, with reference to such intangibles. Undoubtedly, the garden can be viewed as a status symbol. Several authors mention this quality at some point, but no one goes much further and tries to pin down anything more specific, such as the effect on house prices. The debate on defensible space continues, but really this is not at heart concerned with gardens but with much more complex issues in the design of very high density developments. Thus we are left largely with conjecture, a desire for more information, and a strong

suspicion that the garden has a powerful symbolic importance in our society, beyond its merely functional attributes. Newman's work enhances this idea - his comment about the house and garden as the...

"...traditional expression of arrival in most every Western culture..."

seems apt and reasonable, but remains without proof. He continues;

"...by its very nature, the single family house is its own statement of territorial claim." (31)

Perhaps here is the key; a territorial sense innate in man since his days as a hunter. Whatever its true significance, the garden is clearly more important than the sum of its purely functional qualities, though these are of course equally vital; what is required is a great deal more research to isolate these variables and add flesh to what is as yet a skeleton of ideas.

b) Public and Private Open Space

There remains one point which deserves attention to round off this discussion of the importance attached by the resident to his private garden. This concerns the relationship between public and private space provision. Do the two perform similar functions? Are they perceived differently by residents? The implications of such questions for both levels of garden provision and the size of gardens provided are crucial.

That some sort of amenity open space provision is considered necessary in residential development is, as has been shown, in 1.2, an axiom which has been adhered to since

the beginnings of the garden city movement. The form that such space takes does however vary. In Parker and Unwin's designs the provision of both private and public open space was generous. Throughout this century different design ideas - and this is especially true in the public sector - have produced different types and levels of open space provision. The high-density, high-rise developments of the 1950s and 1960s are the most extreme example of generous public space provision at the expense of private garden space. At the other end of the scale the typical arrangement of private housing developments, especially at the lower end of the market, tends to provide a certain degree of private garden space whilst avoiding any provision of public amenity space. (For a further discussion of these differences see Section Two.)

The point at issue here is what are residents' preferences in terms of such differing designs, and how are such different forms of space perceived by both occupier and designer? Burbidge summed up the question succinctly by remarking that the chief dilemma concerned;

"...whether or not public and private open space are really substitutable." (32)

In the past twenty years various views have been expressed on this issue. Bor, for example, has suggested that the two are interchangeable, indicating that any loss of private garden space can be compensated by provision of communal facilities. (33) In this he was supporting the views of Macey (34) and anticipating the consensus of the Parker Morris committee who, later that same year, generally

supported this standpoint. (35) The prevalence of this view at this particular time is interesting and possibly indicative of an overwhelming concentration on architectural unity in the mass housing schemes which were developed in such large numbers during the late 1950s and early 1960s. There is little doubt too that the enthusiasm shown by both designers and Local Authorities for high rise, high density schemes could only gain support from such arguments, since for obvious practical reasons, the provision of separate garden plots serving individual dwellings is an impossibility in such developments.

Subjective opinion remained the only guideline to developers until the application of user oriented research when the picture can be seen to become clearer. The DoE considered the question of whether public open space was a viable substitute for a private garden by asking a sample of housewives on several estates in London, Liverpool, Leeds and Oldham about their preferences. (36) Criticism of flat living centred on the communal access facilities, lack of provision for drying washing, and the problem of supervising small children's play. The solution to these difficulties was specifically stated by 71% of housewives who said they preferred a house to a flat. Of this 71%, half commented that their major reason for wanting a house was to have a garden. Further work by the DoE, again using a social survey approach, isolated specific problems with public open space provision. (37) Children's play was a major source of annoyance to residents since the lack of

private garden space surrounding houses and ground floor flats meant that play often took place too close to dwellings causing problems of noise and visual intrusion. Privacy too was criticised on the grounds that anyone could pass close to ground floor windows and look in.

Furthermore

"...communal open space is frequently thought of as an area where tenants can sit out and meet each other. However, about threequarters of all housewives said they never sat out..."(38)

This latter point best illustrates the misconception on the part of the designers of such developments that public and private space are interchangeable both functionally and perceptually. Regardless of the fact that ostensibly there appears to be no reason why residents should not use public open space for sitting out and sunbathing just as they would their private garden, in practice their perception of that space as something quite different tends to inhibit them from undertaking such activities.

This dichotomy between the perceptions of residents and designers and the consequent use made of communal open space is given further support by the findings of the Edinburgh University Architectural Research Unit. (39) This study concluded that communal space, which was taken to include footpaths, served two primary functions:

- i) Amenity - to provide visual relief and a sense of place.
- ii) Use - as small children's play space and as safe access space.

Whereas the amenity value of public open space was held to be very important, the physical use of communal spaces was

minimal, private gardens and even roads being far more intensively used for play by all age groups. This finding, based on observations on seven estates, was seen to conflict with the views of several developers who saw private and public space as interchangeable. On the sample estates a mix of private and public space was the norm, and perhaps surprisingly the study;

"...reveals little to suggest that the usage of either the roads or greens increased as garden size decreased." (40)

Again this provides clear evidence that public and private open spaces are not regarded as interchangeable by residents.

Even research from a very different background, namely public housing projects in Melbourne, Australia, studied by Stevenson et al, reached similar conclusions regarding the relative interchangeability of public and private open space.

"Some provision must be made then to compensate for the loss of background or 'growing space'. The areas of gardens (sic) and lawns on the estate do not provide this compensation because they belong to everybody and therefore belong to nobody. They are useful but with obvious limitations as a play area for children. The open nature of the grounds makes it almost impossible for tenants to identify themselves with any particular area." (41)

Again the importance of the residents' perception of communal space provision as distinct from private garden space is stressed, and the point concerning such space 'belonging to nobody' is a precursor to Newman's ideas concerning defensible space.

Overall, the findings of several diverse research projects examining attitudes to public and private open

space provision all reach a similar conclusion, namely that these are distinct areas which have distinct functions which are not directly interchangeable. It is interesting to note also that these conclusions result from empirical research whilst earlier claims that public and private space were directly interchangeable stemmed directly from opinion based on little or no research evidence. Nevertheless it is the amount of attention paid to such research by designers and implementation agencies that, in the final analysis, is important. This is an issue which is discussed at greater length in Section Two.

iv) Size Preference

Gardens vary in size as a result of a variety of factors. Housing type, size, value and location are the chief ones. Thus one would expect a detached four-bedroomed house in a suburban or rural location to have much more garden space than a similar house in a inner urban location, and even more than a "two up two down" terraced house in inner London. Attitudes to garden size also vary. However, as has already been shown, certain uses of garden space are almost universal and others are very common. This information suggests therefore that it ought to be possible to establish a minimum garden size to suit the functional requirements of the average family. This was exactly what Lord Esher (42) suggested when he advised that minimum garden sizes should be laid down in the same way as the Parker Morris Committee had established minimum standards for housing. Such a suggestion is however, perhaps not as straightforward as it sounds

in that although it may provide for the scientifically determined functional requirements of the garden, it may not secure universal satisfaction.

Amongst the households of England and Wales there is both a large range of garden sizes and a great range of opinion concerning ideal sizes. Different people may show differing levels of satisfaction with the same size of plot for such reasons as its orientation or degree of privacy and because of the number of young children in the family or the degree of interest in cultivation shown by the parents. But the minimum space for basic functional requirements can be determined and, basing our recommendation on the results of attitude surveys, a possible optimum size can also be suggested. In respect of this latter point several researchers have tried to assess ^here major dissatisfactions lie and to suggest an optimum size which would satisfy the majority.

Taking plot length as the major variable an LCC survey found that lengths of under 25 feet were not acceptable to the majority of residents, whereas lengths of between 30 and 35 feet did prove satisfactory. (43) In effect, this survey showed that two-thirds of residents were satisfied with rear gardens in the 600-1000 square foot range. These findings are supported by Building Research Station (BRS) surveys of Willenhall Wood and an estate in Sheffield. In Willenhall Wood, where garden size varied between 700 and 1000 square feet, hardly anyone wanted anything smaller. In Sheffield sizes ranged from 900 to 1400 square feet and the vast majority of residents found them satisfactory. (44) These results seem to suggest that a rear

garden size of around 800-1000 square feet would prove acceptable to most people. However, this hypothesis appears to be challenged by the analysis of user satisfaction carried out by Bradley. (45) His evidence from several estates showed that 66% of respondents were satisfied with gardens of 25 square metres (263 square feet) or larger. This result indicates that the majority of respondents were satisfied with gardens very much smaller than the 800-1000 square feet suggested above. Careful analysis of Bradley's data reveals, however, that most of the small plot sizes in his samples were attached to patio houses, and it is probably this feature which accounts for the high level of user satisfaction with such a small plot. This point is illustrated by MoHLG (46), which notes that several studies have found a high level of user satisfaction with small garden areas of around 400 square feet when they are incorporated into patio housing. The assumption here is that the increased level of privacy in the garden, brought about by the use of this house type, compensates for any loss of space and indicates that demand for garden space is strongly related to the desire for residential privacy.

Several other factors such as location and equality in levels of provision also seem to affect peoples' level of satisfaction with garden provision, according to a MoHLG study cited by Cook. (47) This study discussed peoples' expectations regarding size, and concluded that, whilst dwellers in medium density estates and new towns might not regard garden areas of 1400 square feet as excessive, lower density rural dwellers might not regard 2100 square feet as too large. Correspondingly in an

inner city location, where space is at a premium, few people are dissatisfied with plots of 500 square feet or less. The immediate environment, and in particular, density, have strong influences on people's perception of, and level of satisfaction with, garden space provision. Furthermore, a degree of equality in terms of garden size can ease the problem of poor space provision. Cook comments that;

"...resistance to accepting small gardens may well be less under circumstances in which most people have equal amounts of private open space, than where there is an unequal distribution of garden size..."(48)

This point is undoubtedly bound up with the question of status and the recognition of some areas and some particular dwellings or groups of dwellings as more desirable than others.

If however we consider the problem of garden size solely in terms of function, as did Cheshire County Council in their publication Planning Standards - Open Space, analysis of the amount of space required for the various activities carried out in the garden produces yet another suggested size. Cheshire in fact recommended that 50 square metres (530 square feet) is adequate to provide for the usual garden functions. (49)

Can we then draw any conclusions regarding preferred size of plot from the research and opinions expressed above? The problem is obviously complex and subject to many variables, both physical - namely location, and house type; perceptual - attitudes to privacy and status being of importance here; and activity based, namely the type and frequency of use of garden space. Perhaps two recommendations, as to a minimum size of plot and an optimum size, are in order. Using purely functional criteria, it seems fair to surmise that gardens of an area less than 500

square feet, regardless of any of the factors mentioned above, do not meet the needs of the majority of people. This area is around the minimum capable of accommodating a reasonable length of clothes line or rotary drier, allowing space for small childrens' play to take place at the same time, and providing some space for cultivation. These three activities seem to be the essential functions of any private garden if it is to be considered at all viable. Gardens which fall below this minimum will therefore tend to be regarded as generally too small to be of much use and are gardens in name only, the activities which it is their role to accommodate being of necessity carried out elsewhere. Plot sizes greater than the 500 square feet minimum will obviously not provide universal satisfaction, but should be capable of sustaining essential activities and can be regarded as viable. This conclusion regarding a viable size of plot is supported by DoE (50), which notes that in a survey of several estates in London and Sheffield gardens of around 400 square feet or over were satisfactory to about 75% of the housewives surveyed. Plots smaller than this showed a marked decrease in user satisfaction.

However, whilst 500 square feet might provide a "working minimum", an optimum size is more likely to be in the 800-1000 square foot range. This conclusion is based on the findings of the surveys by LCC (1960) and BRS (1963) cited above. In all the cases quoted here no one seemed positively to want a garden smaller than this. It is important to realise that preferred garden size is not simply based on functional capacity but is the result of several complex perceptions of the environment.

As has already been suggested, the garden is valued for many more reasons than its immediate functions. So although a minimum standard of 500 square feet might meet the essential requirements, the research generally shows that a standard of 800-1000 square feet is much more likely to provide satisfaction, because it satisfies other supplementary, but equally valid needs, such as the desire for privacy, a need for emotional if not actual physical security, and a sense of status.

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1.5 CONCLUSIONS

The aim of this section has been to illustrate the importance of the garden both historically as an element of English culture, and in terms of contemporary society. Chapter 1.1 has demonstrated the continuity of the garden tradition and the survival of this tradition despite major social upheavals. It is suggested that the garden survived the major societal changes of the eighteenth and nineteenth centuries as a result of three main factors. Firstly, the established place of the garden in rural and urban life argued for its continuance. Secondly, the conservatism of the building industry, which continued to produce traditional single-family dwelling types, allowed the garden, in the case of working class housing, to re-emerge after a period of intense urban pressure threatened to submerge the tradition. Thirdly the continued access to garden provision of the privileged groups in society, notably the emergent middle class of the nineteenth century, as a result of the improved transport and lack of fiscal and legal constraints on suburban expansion, helped to nurture the garden through the trauma of the industrial revolution and maintained the garden as an element in the popular image of the desirable life-style. As a result the idea of the garden city/suburb emerges not wholly as a product of Howard's utopian vision but as a reflection of ideas already extant in Victorian middle class society.

The current supply of and demand for gardens are considered in Chapter 1.3. It is concluded that around 75% of dwellings currently have access to a garden but that there are marked differences in levels of provision both between regions, between urban and rural areas and between tenures. Local Authority and private renting tenants who live in the inner areas of towns and cities are the groups most likely not

to have access to a garden. Owner occupiers, as long as they do not live in terraced accommodation built before c1919, are almost certain to have access to a garden. Indeed the supply of owner-occupied accommodation with gardens is such that almost all demand is met. This is not the case with Local Authority and privately renting tenants who are quite likely to live in accommodation lacking garden provision even though this is not their first choice. The desire for gardens appears to be constant throughout all sectors and tenures and an overall demand for gardens from between 80 and 90% of households is postulated.

The available research on the function of the garden (see 1.4) shows that the garden is valued throughout the life-cycle of residents, although the relative frequency of activities carried out in the garden tends to change over time. For example the desire for a dwelling with a garden amongst young married couples is particularly strong because of the value placed upon the garden as a safe and convenient play area for children. As children grow older they tend to use the garden less for play, but as the adults grow older they tend to become more active in cultivating their gardens. Throughout the life cycle the garden is frequently used for the normal run of household functions such as drying washing, making and mending and hobbies. Similarly the garden is a continuous source of less tangible benefits to the resident such as pride, security and status. The available evidence suggests therefore that the garden is a feature of housing which is of major importance to the average household for many reasons beyond the generally accepted uses as childrens play space and cultivation. As a hypothesis to be borne in mind when reading Sections Two and Three therefore, it is suggested that for a variety of reasons the vast majority (80-90%) of households in England and Wales are positively desirous of private garden space. Furthermore there is every reason

to suppose that this has been the situation for at least the last sixty years.

As a result of the general desire for garden space the tendency for households to move away from non-garden accommodation to dwellings provided with gardens and then remain there is clearly explicable. The status and importance attached to owner occupation in England and Wales, demonstrated by the growth in the owner occupied sector in the last sixty years, are also important factors in boosting the importance of the private garden to all households since owner occupied housing is characterised by almost universal garden provision.

The question of the interchangeability of public and private open space is also considered and it is concluded that although many of the reasons are perceptual rather than functional an area of communal open space cannot be considered a substitute for a private garden.

Leaving aside psychological and perceptual questions a minimum garden size of 500 square feet is suggested on the basis of the examination of research into the question of usage of garden space. However an optimum size of 800-1000 square feet is suggested when all factors, both functional and perceptual, are considered. This difference between a practical minimum and a desirable optimum is perhaps the best proof of the care and attention paid by the public to their gardens and of the incalculable value placed on the garden in our society.

SECTION 2

2.1 INTRODUCTION

The aim of this section is two-fold. Firstly, it attempts to illustrate the effect of public intervention on the supply of gardens.

The publication of the Tudor Walters Report in 1918 is chosen as the starting point for the discussion since that report marks the beginning of large-scale intervention by the State into the housing market. As the discussion shows, the issue of whether to provide gardens in new housing development has been debated principally with reference to the public sector, whilst the private sector has enjoyed a high level of garden provision throughout. 1918 is also sufficiently distant in time for the majority of the current housing stock have been built since then. Thus while a substantial proportion of nineteenth century terraces remain in use today, (these have already been discussed in 1.3) the vast majority of dwellings in this country have been built since 1918 and hence their origin and design fall within the scope of the analysis in this section.

The second aim of this section is to contrast the level of garden provision during particular periods with demand for gardens during the same periods. The evidence of demand which is available has already been discussed in 1.3, where it was concluded that the level of demand for private gardens has remained consistently high, at between 80 and 90% of all households since 1941. No evidence prior to this date is available, but it is probably reasonable to postulate a similar demand prior to 1940 based on the consistent nature of demand over the last forty years, and on the popularity of both public and private housing schemes which were built to garden city/suburb designs during the 1920s and 1930s. Thus a basic premise of this section is that the demand for private garden space in England and Wales during

the period 1918-81 has remained almost constant at between 80 and 90% of households. Therefore, whenever the level of garden provision has fallen below this figure, a detailed examination of Government policy is attempted in order to assess whether it is the primary factor underlying the fluctuation in levels of garden provision.

The development of a distinct shift in tenure patterns during the period under consideration is an important factor which must be taken into account. In 1918 10% of dwellings were owner occupied; in 1981 this figure is fast approaching 60%. (1) There has also been a commensurate decline in the private rented sector, and the period has witnessed the rise of a new tenure, the council rented, which in 1918 accounted for less than 1% and in 1981 stands at 30% of the total housing stock. This change is especially important since the fastest growing sector, the owner-occupied, has been characterised throughout by almost universal garden provision. Consequently when the overall level of provision of gardens in new housing has fallen below the critical 80-90% mark, it has invariably been in the public sector that the deficiency has been located. Hence this section concentrates on public sector housing provision and attempts to analyse why and how the changes in dwelling design and garden provision have occurred.

Two basic elements are considered when attempting to analyse changes in policy towards garden provision. First of all the role of politics is examined. A State which operates a mixed housing economy such as ours, with private enterprise on the one hand and the State on the other, providing housing, is bound to regard housing as a political issue, and this has indeed proved to be the case throughout the period in question. The relative levels of production of houses in each sector, and the amount of encouragement given to the agencies of

production in each case have, therefore, proved to be a constant source of political argument. In general Labour Governments have tended to support the ideal of council housing more strongly than Conservative Governments, who have tended to favour private enterprise, but as the discussion shows, this distinction has not been quite so clear in recent years, when both parties have come to recognise the desirability of promoting owner occupation. In general there has also been a marked contrast in the policies of both major parties between the provision of housing for general needs, which increases the total housing stock, and slum clearance and replacement which replaces worn out stock without actually increasing the overall number of dwellings. The underlying philosophies of the respective political parties have ensured that Labour Governments tend to opt for general needs since they perceive council housing as having an important role to play as an alternative to private enterprise, whilst Conservative Governments have tended to prune general needs provision, relying on the private sector to increase the housing stock. At the same time Conservative Governments have generally been active in promoting slum clearance and replacement. Such action has had important implications for garden provision, since, because slum clearance and rebuilding schemes are usually carried out in inner city areas where space is at a premium, very often flats have proved to be the chosen form for new housing. Thus garden provision has been on a much reduced scale in many such developments.

The means of control by Central Government, of the form of development and the amount of building undertaken by Local Authorities, is vital to the translation of Central Government policy into the built form. The overall degree of control which Central Government

exercises over Local Government in many fields as well as housing is open to debate and it is not intended to enter into any lengthy discussion of this general area here. (2) As this section of the thesis demonstrates however, the history of Local Authority house building over the past sixty years shows the marked influence of central policy and funding on local action. Of course, there have been exceptions. Differences in political complexion between Central and Local Government, varying local circumstances, such as the availability of land for development, and differences in Authority size* are all factors which can affect the degree of compliance with, or resistance to Central Government advice by Local Authorities. Generally, however, Central Government housing policies can be observed to have affected local action within a relatively short time scale.

The mechanism of control of Local Authority housing development by Central Government has for most of the period under investigation been the housing subsidy. Housing mode, whether for example it is general needs or slum clearance, the form of housing, for example flats, houses or maisonettes, and the density at which development may take place, are all capable of control by subsidy and thus the subsidy system has exercised a powerful influence on Local Authority action.

* The extent to which Central Government controls Local Authority action is the subject of much debate, mainly as a result of the difficulty involved in assessing the problem. Nevertheless attempts have been made, notably by Boaden N, in Urban Policy Making, 1971 Cambridge University Press, esp pp 11-20. Whilst he concludes that there is considerable variation between Authorities within a general framework of control, Goffin N in his M Phil thesis Decision-Making in Residential Renewal, 1978, Sheffield City Polytechnic, suggests that larger Authorities are sufficiently autonomous to act independently of Central Government advice, whilst such advice is often inappropriate to the conditions pertaining in smaller Authorities.

For example a concerted effort by Central Government to encourage flat building, a policy which necessarily entailed a reduction in the level of private garden provision, was successfully achieved in the late 1950s and 1960s. (3)

The subsidy system is, ultimately, however, only the mechanism of financial control. The underlying reasons for the adoption of housing policies which come to be reflected in the establishment of particular subsidies must be examined in order to achieve a satisfactory understanding of changes in the built form and in the level of garden provision.

There is also a second important area to be considered when examining such changes. This involves an examination of the role and influence of the professionals, notably architects, planners and housing managers in both Central and Local Government. Whereas politicians are the formulators of policy, the task of translating policy into useful advice is generally the preserve of the professional. Thus a particular Government may opt for a general increase in residential densities, but the details of model schemes at the required densities, the differences between gross and net densities, and the particular mix of dwelling types possible are all devised by professionals employed by Central Government. The ideas on housing, and on particular issues such as garden provision, which such designers believe valid, and which they utilise in their work are, therefore, particularly important, when they are documented in the form of Central Government advice to Local Authorities. Equally the ideas of professionals employed by Local Authority departments are important because of the influence (admittedly variable) which these people exercise over local politicians. The role of professional ideas is then a second and

complimentary strand of investigation into the changing level of garden provision over the last sixty years.

But the final analysis must always involve the prospective occupiers of new housing. The level of demand for garden space has already been examined. The apparent lack of recognition at various times of the high level of demand for gardens, and the apparent lack of interest in the question of designing to accommodate adequate garden space, is a major theme to be borne in mind when reading the following pages.

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The end of World War I marks an important milestone in the history of housing in Britain, since it was at this time that Central Government first began seriously to involve itself in the question of providing housing for the poor by means of State subsidies. Lloyd George's promise of 'Homes fit for Heroes' was honoured by the Housing and Town Planning Act, 1919, which provided subsidies to Local Authorities to build new houses. (1) The recommendations which Central Government issued to Local Authorities in 1919 concerning the design and layout of the new houses closely followed the advice which it had itself received from the Tudor Walters Committee, 1918. (2) This report established the trend in housing design in both public and private sectors for the following decade, and so the deliberations of the Committee and its conclusions are worthy of close scrutiny. The subject of private garden provision was a central issue in the design of Tudor Walters housing, but as will become apparent later in this section, official guidance on housing design and layout in later years did not always continue to treat the garden as a key issue. For this reason also a synthesis of the discussion in the Tudor Walters Report is valuable.

The task of the Committee was;

"...to consider questions of building construction in connection with the provision of dwellings for the working classes in England, Wales and Scotland and to report upon methods of securing economy and despatch in the provision of such dwellings."

The first question considered by the Committee, therefore, concerned the basic type of dwelling unit to be recommended. There was a strong presumption in favour of 'cottage' dwellings from the proponents of the garden city who were members of the Committee, notably the

Chairman, Sir John Tudor Walters, and Raymond Unwin. The possibility of tenements was discussed, however. Many nineteenth century schemes for housing the working classes by municipal or philanthropic action had involved multi-storey tenements, but these had, with a few exceptions, proved unpopular. (3) No advocate in fact appeared either amongst the Committee members or amongst its witnesses to support further development of tenement construction for housing the working classes. The development of two-storey flatted dwellings also received some consideration, but whilst it was agreed that this form might be acceptable in Scotland where the tradition of tenement living was very strong, the Committee noted a number of disadvantages involved with living in such accommodation. These included the difficulty of carrying coal up flights of steps, the danger involved in leaving bedroom windows on ground floors open at night, and;

"...for the tenants of first floor flats the necessity to go downstairs for access to the garden must be a considerable disadvantage, where there is a family of small children."(pp24-25)

This final point is revealing. Even when discussing flatted development the committee naturally assumed the provision of private gardens for each unit, proof of the importance attached to the garden at this time (especially in the light of more recent developments where flat building has always implied that gardens are not provided). Thus the eventual choice of design was the two-storey cottage dwelling. Several alternative internal plans were proposed, but all were clearly based on the 'garden city' precedents at Letchworth, Hampstead and in the garden suburbs developed between 1900 and 1920.

In terms of external layout too, the example of earlier work of Parker and Unwin for the garden city movement was closely adhered to in the Tudor Walters recommendations. An important consideration here,

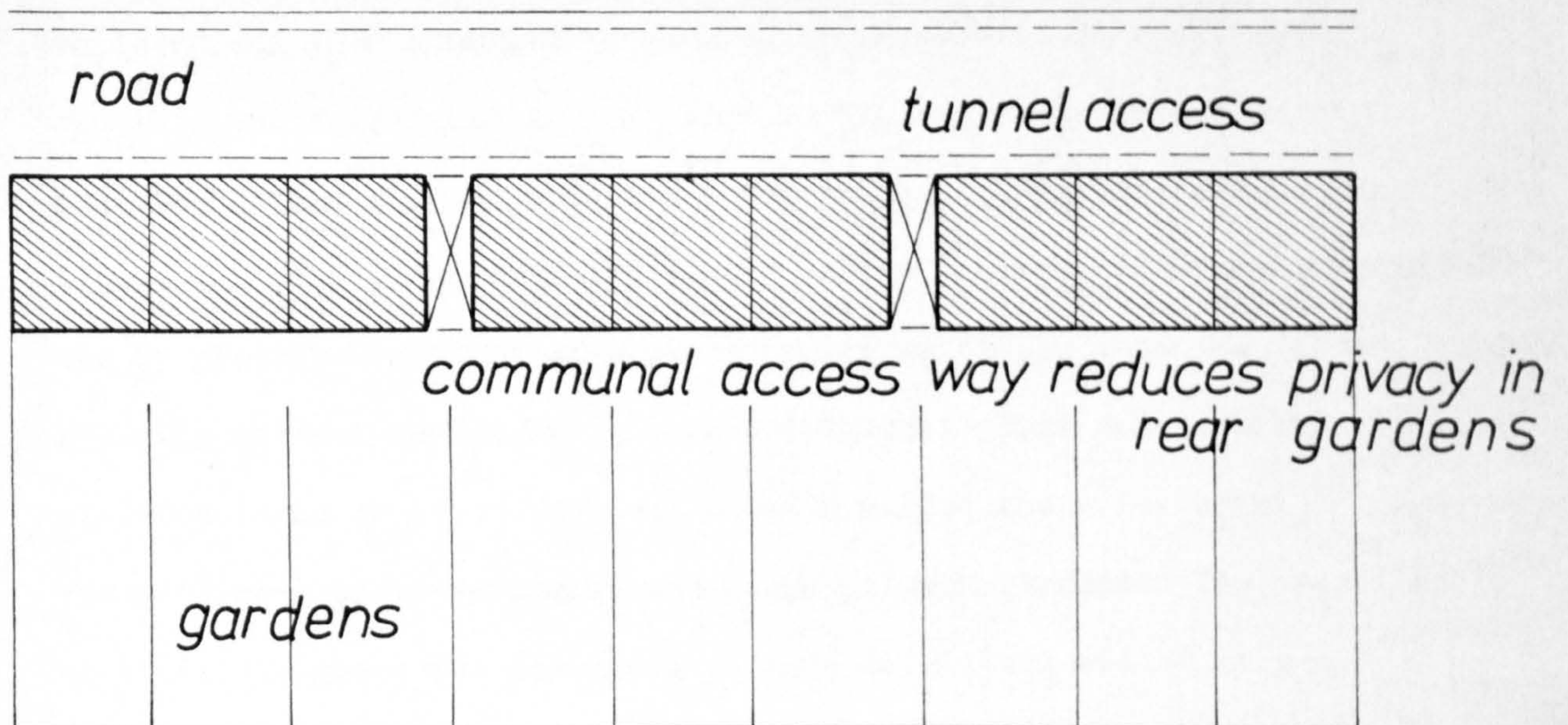
which resulted more from the practical example of schemes already built than from theory or discussion, was the stipulation of a minimum distance of 70 feet between opposing frontages and backs of houses in order to provide an adequate amount of daylighting. This standard, coupled with the basic premises of providing short terraces, usually no more than six units long, setting back dwellings from the carriageway by means of verges and front gardens, and the provision of public amenity space in addition to private gardens, ensured that the resulting development would be at around twelve dwellings per acre, exactly as built in many of the earlier garden city/suburb schemes and as advocated by Unwin. The standards employed also ensured that every dwelling would be provided with a generous allowance of private garden space. As at Bournville wide fronted terraced forms were adopted, around 28 feet being a typical dimension. The rear garden sizes which resulted from the Tudor Walters recommendations are, therefore, rarely less than 1000 square feet, and are often substantially greater.

It is important to note that the garden was not simply the result of a combination of design factors relating to daylighting and dwelling size. It was considered as an objective of primary importance in its own right, and several pertinent observations regarding garden provision are made in the Report. Firstly, the question of privacy is discussed. Long terraces without tunnel access between each pair of dwellings require communal access along the backs of blocks. This situation was seen as undesirable since it lessened the privacy of rear gardens and, the Report stated;

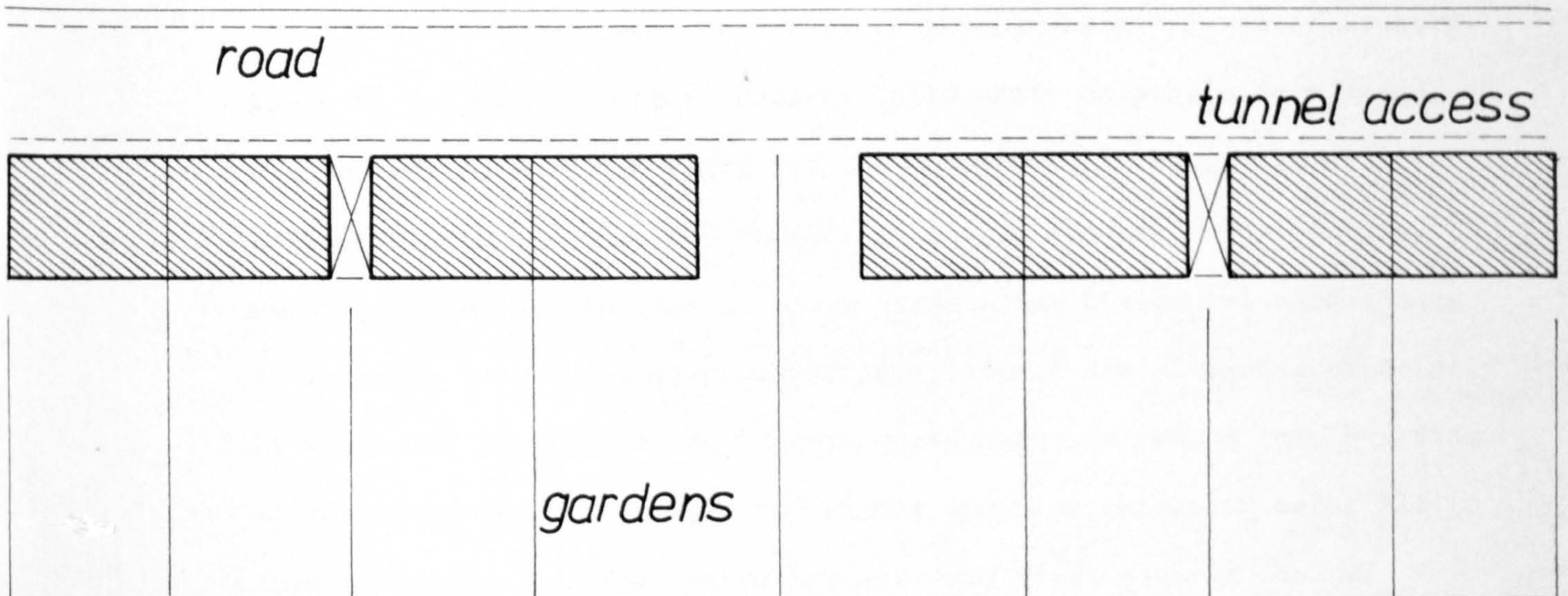
"...leads at once to the desire for a back yard enclosed by a high fence or walls to secure some privacy. When the whole garden is enclosed by a hedge and reserved for the use of the occupants of the house the reason and desire for an enclosed backyard alike disappear." (p 18) (See figure 2.1)

Fig 2.1

PRIVACY PROBLEMS CAUSED BY ACCESS WAYS- THE TUDOR WALTERS SOLUTION



Nineteenth century terraces- long terraces of narrow fronted houses with limited tunnel access to rear.

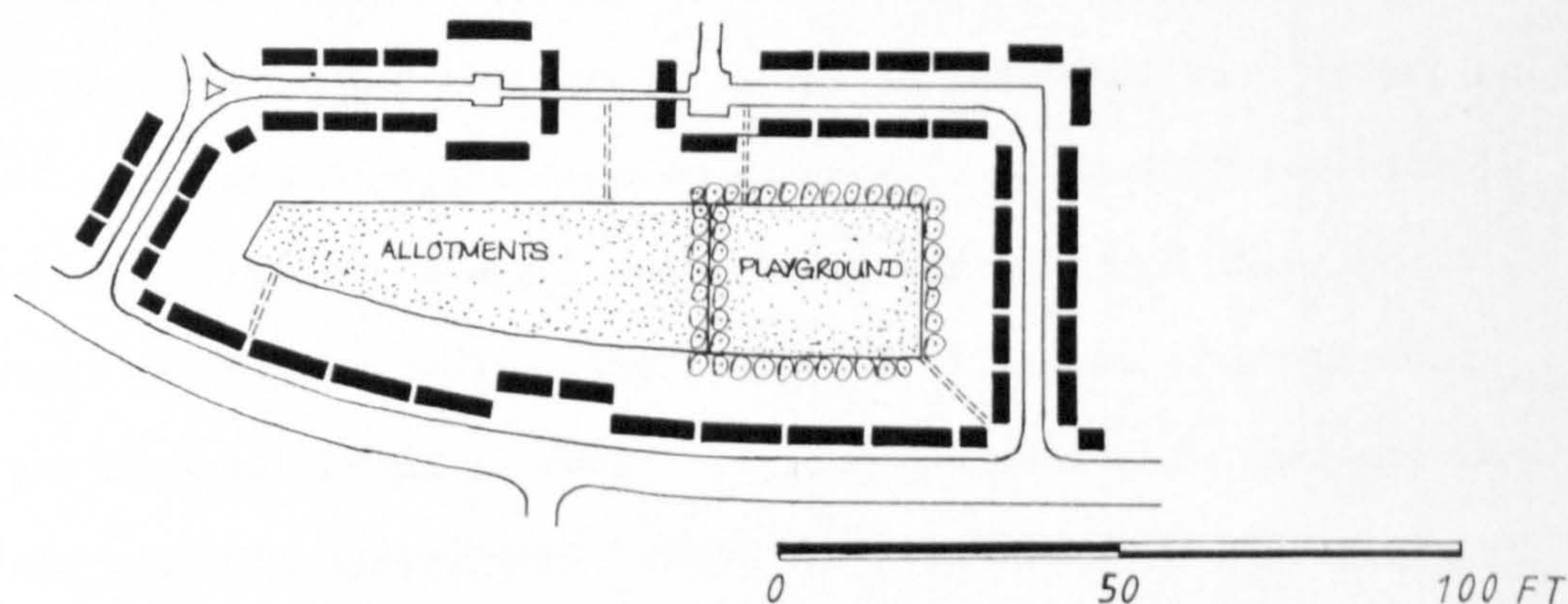


Tudor Walters terraces- short terraces of wide fronted houses solves access and rear garden privacy problem.

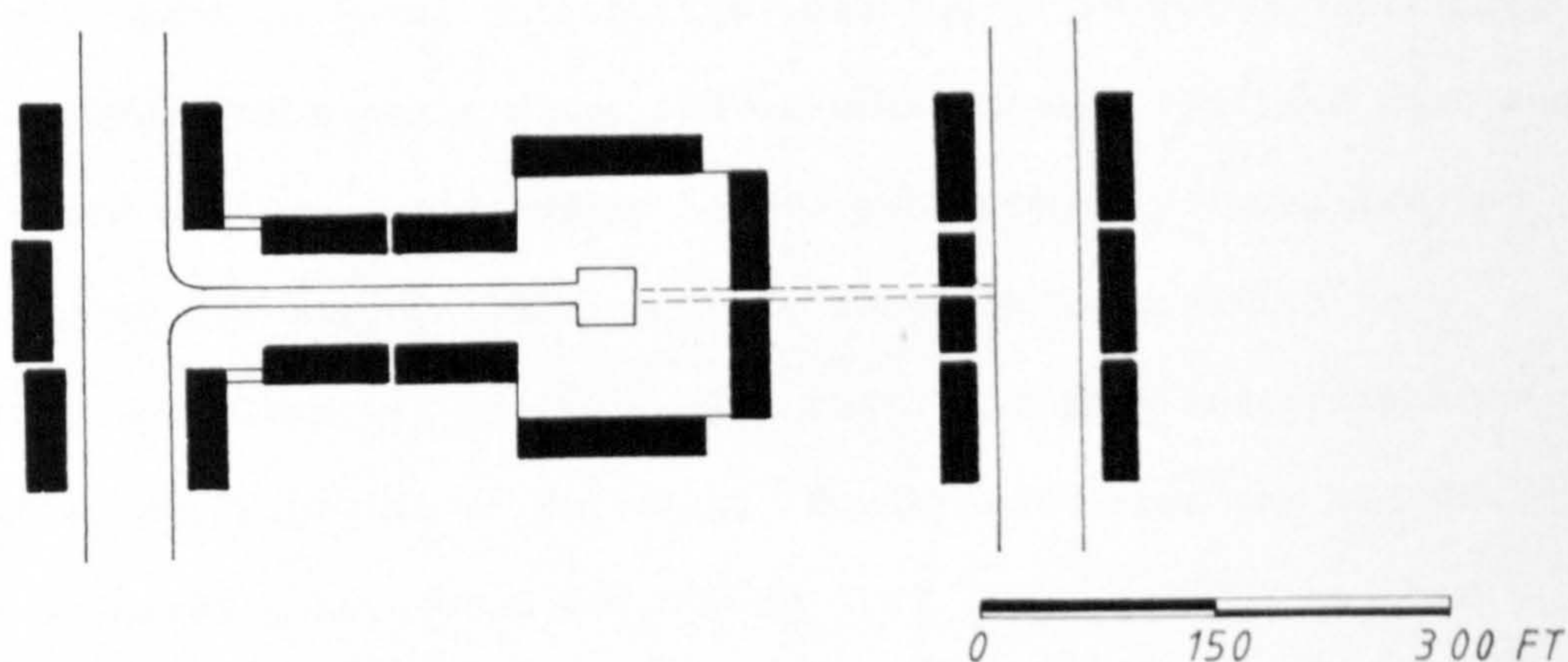
The design of Tudor Walters terraces therefore, reflects the perceived need for privacy in the rear gardens. In addition to the consideration of privacy in design, the use of the garden as safe play space for children was also stressed by several of the Committee's witnesses and this was reiterated in the Report. The expressed intention of building houses cheaply also had implications for garden design. As figure 2.2 shows, one means of saving on the costs of road construction was by placing dwellings as close as possible to the roadside, thus ensuring maximum development of road frontage. This design method produces large areas of backland which provides space for both communal open space provision and large private gardens. The relationship of houses to roads was discussed in some detail, and whilst it was recognised that the examples shown in figure 2.2 could produce savings at the expense of front garden space on estate roads, such economies were offset by environmental disadvantages in the case of dwellings fronting on to main roads. In this case, the Committee argued, large front gardens ought to be provided in order to mitigate the effects of dust, noise and smell generated by traffic. Indeed the provision of amenity space of all kinds, whether gardens, allotments or public open space, was considered both necessary for the enjoyment of the estate by its residents, and a useful design tool to effect economy. For example, it was suggested that the use of large gardens and incidental open spaces to maintain low densities produced less intense use of roads, especially by vehicular traffic, which in turn could serve to reduce road building costs by the use of reduced road widths and less expensive materials. (p 15)

Thus the garden was seen as an integral and vital part of the new housing schemes, important in its own right as play space and as a private outdoor area, in some cases as a buffer against the noise and

Fig 2.2 MAXIMISATION OF USE OF EXISTING ROAD FRONTAGE PRODUCES LARGE BACK GARDENS AND COMMUNAL SPACE



QUADRANGLES USED TO EFFECT SAVINGS IN ROAD CONSTRUCTION



Source: Tudor Walters Report 1918 HMSO pp 15-16

activity of the road, as a tool for securing economy in development, and not least as a major source of visual amenity in the development.

Central Government welcomed the Tudor Walters Report and acted upon its recommendations. The influence of the garden city movement on the infant town planning profession, and especially the work and influence of Raymond Unwin during the preceding decade and more, were undoubtedly key factors in the Report's easy acceptance. (4) In 1918 for example a Government circular to Local Authorities had informed them that Government assistance towards the provision of houses after the war would not be forthcoming if densities exceeded twelve to the acre in towns and eight in agricultural areas. (5) To discover the origin of such recommendations we must look no further than the garden city movement and its chief protagonist Raymond Unwin, who had been designing schemes and promoting development at exactly those densities ever since his first major project at New Earswick near York in 1902.

Addison's Housing Act of 1919 provided the subsidy for the building of general needs council housing which enabled the Tudor Walters recommendations to be put into practice. The subsidy covered all costs to Local Authorities incurred in building dwellings, over the product of a penny rate. Government quickly realised that such an open ended subsidy could easily become prohibitively expensive and so the subsidy was axed in 1921, only to reappear in modified form under the Chamberlain Act of 1923. The result of such indecisiveness was a curtailed programme of building. Bowley estimates the national shortage of housing at around 600,000 in 1919. (6) By 1923 neither this figure nor the official target of 500,000 (7) had been reached. Those houses which were built, however, faithfully followed the standards set in the Tudor Walters Report and were provided with large

garden plots, front and back. In Sheffield for example over 2,000 dwellings were built or under construction by 1923 as a result of the subsidies. (8) Several hundred of these were contained on the Manor estate, part of which is illustrated in figure 2.3. The layout shown here is typical of Tudor Walters estates. Terraces do not exceed six houses in length, there is ample garden provision and a large amount of public open space in the form of greens and playgrounds provides scope for both recreation and visual amenity. Many such estates, and Manor is no exception, adopted a strict geometric layout design of concentric and radial roads. This solution, coupled with the emphasis on maximum road frontage utilisation, produced some unorthodox garden shapes as figure 2.3 shows. Corner plots in particular tend to have more of a side than a rear garden and the level of privacy is undoubtedly not so high in such circumstances. Indeed many similar Local Authority schemes built during this period, whilst adopting the general philosophy of the Tudor Walters recommendations, exhibit such clumsy design features. The prevalence of similar geometric road layouts on estates in widely different locations is indicative of a lack of imagination in the design process and is in stark contrast to the sensitivity and care which Unwin showed in his own work, as evidenced by his careful use of cul-de-sacs, set backs, and greens at Letchworth and Hampstead. Nevertheless garden provision is universal and plot sizes are large, in the 1500-2000 square foot range.

Despite changes in the detail of the subsidies as further Acts of Parliament were introduced residential development of the 1920s was characterised by a concentration on housing designed according to Tudor Walters principles. Moreover such housing was not confined to the public sector. The Chamberlain Act of 1923 attempted to stimulate

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the private building industry by making provisions for it too to receive subsidies to build for sale or private renting. In fact under the provisions of this Act, Local Authorities could only gain access to subsidies if they could prove that private builders in their area could not meet the need for housing. A basic condition of the subsidy stated that all dwellings constructed should conform to Tudor Walters standards. As a result, 362,700 subsidised private housing units were built under the provisions of this Act compared with only 75,300 by Local Authorities. (9) Nevertheless the built form of this housing differed little from the Local Authority types. An example which is probably typical of the period is the Handbridge estate in Chester. Here a major housing development was undertaken by the City Council to provide rented accommodation, but on the same site the Council itself also built houses for sale. The two types of dwelling today are not indistinguishable from each other. The houses built for sale tended to utilise better quality materials, and employ more variety in design. Indeed this caused many families with diminished incomes during the high unemployment of the 1920's and 1930's to relinquish contracts for the purchase of Council houses or seek exchanges with tenants in cheaper Council accommodation. However, in terms of density and garden provision the two types are generally similar. (See 2.4) The private sector too responded to the need for housing by building units very similar to the Local Authority sponsored ones, even when acting without the benefit of the Chamberlain subsidy. Undoubtedly the close relationship between Local Authority and privately built housing which was fostered by the 1923 Act contributed to the similar nature of the built forms, but it is also likely that public demand for the cottage with garden type of dwelling reinforced this trend. Suburbanisation

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had been taking place in most large cities since the mid-nineteenth century. The proceeds of the steel and cutlery industries had produced the leafy Sheffield suburbs of Nether Edge and Broomhill. Leeds, Liverpool and Manchester had undergone a similar process, their wealthier middle class citizens moving steadily further away from the congested industrial centres. (10) Emulation of this trend by the working classes inevitably followed where possible. The "Working Man's Garden Suburb" at Walkley in Sheffield (mid-nineteenth century) is an early example (11), and the success of Port Sunlight, Bournville and all the later garden cities and suburbs attests to the popularity of development at low densities. The continued use of this form of residential design by private developers during the 1920s is, therefore, hardly surprising, especially when the additional incentive of Government acceptance of the Tudor Walters standard is taken into account. Furthermore the general popularity of garden city layouts allied with the inherent conservatism of the building industry ensured that similar, if somewhat modified house styles and densities dominated the great private building boom of the 1930s. This conservatism was given a fillip by the subsidies provided under the 1923 Act to encourage private builders to build for sale. Issacharoff argues that several builders, a notable case being Wates, made sufficient profit from these subsidies to expand their activity, which in turn helped bring about the boom of the 1930s. (12) The 1923 Act specifically demanded that in order to attract subsidies dwellings must conform to the Tudor Walters standard. Such an advantageous and potentially profitable situation surely acted as an incentive to go on building similar housing, which the industry was by then clearly geared to do, even after the original subsidy was reduced (1927) and finally

removed (1929). Hence just as both public and private housing design in the 1920s... can be adjudged to have arisen out of the garden city movement by way of Tudor Walters, so too the private housing of the 1930s can be seen as a development of the styles of the 1920s.

Despite several changes in the subsidy system the decade between 1920 and 1930 shows a remarkable degree of uniformity in housing provision both between town and country, between regions and between sectors, which is paralleled by a consistently high level of garden provision both in terms of numbers and size of gardens.* That such uniformity was the case is perhaps surprising considering that party political differences were apparent even at this early stage in the history of State subsidised housing. Conservative and Liberal policies, in varying degrees, attempted to place the task of building working class housing in the hands of the private builder, to build for either sale or rent. The Conservative backed Housing & etc Act 1923 which produced five times as many dwellings built for sale by private builders than for rent by Local Authorities is the prime example. The Housing and Town Planning Act, 1919 had also included

* Although the Tudor Walters standard set the pattern for most housing development in the 1920s, there were, as always, local exceptions. Liverpool for example built a number of walk up flats similar in design to those built by many other urban authorities in the 1930s. For details see Ravetz A - 'From Working Class Tenement to Modern Flat: Local Authorities and Multi-Storey Housing between the Wars,' in Sutcliffe A (Ed) Multi-Storey Living, 1974, Croom Helm.

The most notable exception to the Tudor Walters standard however, is the Ossulston St, scheme built by the LCC and begun in 1928. This site, located between Euston and St Pancras stations, was the subject of several plans for high rise (9 storeys) flats, with a mixture of privately owned and local authority rented units. It was eventually built as wholly Local Authority rented and to a maximum height of six stories. For details see Pepper S - Ossulston St: Early LCC Experiments in High Rise Housing 1925-9, Urban Studies Seminar Papers, Liverpool University, March 1979.

provision for private enterprise involvement, and this too was the product of moderate and right wing political backers. Labour policy, expressed in the Housing (Financial Provisions) Act, 1924 and the later Housing Act, 1930 placed responsibility for both council house construction and letting in the hands of Local Authorities. The form of housing built, however, remained consistent despite these variations in policy. Such consistency was a function both of the strength of the garden city movement in contemporary planning and political theory, but moreover a result of an inadequate understanding of the problem of providing low cost housing on the part of Central Government. How to economically produce housing at rents within the budget of the poorest workers was the major question which faced Government at the end of this decade of low density suburban expansion. (Indeed it is a problem which has beset council housing ever since). The huge backlog of nineteenth century inner city slum housing was also a pressing problem by 1930. Thus as a decade of consistency drew to a close a change in housing policy was inevitable, and in concert with it a change in the level of garden provision was a strong possibility.

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2.3 1930-39

Despite the fact that nearly a million dwellings were constructed according to Tudor Walters principles during the decade up to 1930 (1) a serious housing shortage remained. The 1931 Census revealed that there were 11.5 million families living in 10.5 million dwellings in Britain. Overcrowding was a major problem. It stemmed from the inability of Local Authorities and private enterprise builders to produce enough housing at low enough rents to persuade families to move from the overcrowded but low cost slum areas which were a feature of many towns and cities. The way to tackle this problem, as seen by the Labour Government of 1929, was to attack at source and clear the slums whilst continuing to push ahead with building 'general needs' housing to overcome the numerical shortage. This was a new approach. Minor slum clearance schemes had been undertaken previously (2) but the main thrust of policy had been to build general needs housing in the hope that this would attract people away from the deprived areas. This policy had not succeeded because rents in the new houses tended to be higher than in the slums. In Sheffield in 1932 average council rents for three roomed houses were 10s 9d per week, and for four roomed houses 12s 11d compared with an average of 7s 6d in the old inner areas of the city. In Manchester average council rents of between 13s and 15s per week compared unfavourably with the 7s to 9s paid by slum tenants. With the average working class family income at just over £2 per week many families could not afford to move to the new estates. (3)

In 1930 the Greenwood Housing Act marked the first serious attempt to tackle the problem of slum housing on a large scale. The Act provided for the purchase and demolition of slum properties by

Local Authorities. It also provided subsidies for the building of dwellings to replace those demolished. Significantly, in the light of later developments, the Act stated that in order to attract subsidy, the type of housing constructed to replace the slums must conform to the conditions of the Housing and Etc Act, 1923. Houses in respect of which contributions might be given in the 1923 Act were as follows:

- i) a two storied house with a minimum of 620 and a maximum of 950 square feet (floor area);
- ii) a structurally separate and self contained flat or a one storied house with a minimum of 550 and a maximum of 880 square feet (floor area).

These criteria suggest that the basic type of replacement housing envisaged under the Act was of the Tudor Walters type. The Act also recognised the practical difficulties of subsidising replacement dwellings equal in number to the high density slums demolished, and the problem of high land costs on clearance sites. Therefore provision was made to allow the construction of flats on restricted or expensive sites, but only on receipt of ministerial approval. So whilst Central Government realised that in certain cases rebuilding would necessarily have to take the form of flats the presumption of the Act was against flats and in favour of low density houses with gardens. This legislation was a logical progression from previous policies which had been tried and tested during the 1920s. Subsidies to enable the construction of low density family housing had been the norm for ten years and so the subsequent recognition of slum housing as a major problem provoked a legislative response broadly based on the idea of extending the development of low density housing. Some flat building was thought unavoidable, but the main thrust of the policy, judged by the provisions set out in the Act,

was to continue to provide houses and gardens as the standard form. Equally important, the previous subsidies providing for general needs housing were to continue in order to increase the supply of housing, and here as always, the low density solution held good.

In fact little action proved possible under the Act of 1930. By December 1933 only 11,796 houses had been build using the Greenwood subsidy, which is a poor performance when compared with, for example, 96,944 general needs houses built in 1919-21. (4) World recession and economic upheaval at home forced the Labour Government out of office in August 1931 and a predominantly Conservative coalition took its place following the election of October 1931. The new National Government, following its predecessor's example, determined to tackle the problem of slum housing, but its method was conspicuously different from the previous attempt and had serious implications for public attitudes to council housing and for the future of the private garden.

Under the Housing (Financial Provisions) Act, 1933 general needs council house building was abolished. The task of making up the numerical shortfall in housing was entrusted totally to private enterprise, in the hope that a free market would stimulate greater output. Critics of this policy would argue that free enterprise would not provide low cost housing for the poor, but such criticism could be countered in two ways. Firstly the experience of the 1920s had shown that even with Central Government subsidy to Local Authorities the needs of the very poor for decent housing had not been met. Secondly the theory of 'filtering' could be invoked. The rationale behind this latter point stated that as more new houses were produced, greater upward residential mobility would result,

which would leave a growing number of empty houses at the bottom of the market, and these houses, would increasingly become available to poorer tenants. The Minister of Health, Hilton Young summed up the expected result of his policy in his speech introducing the 1933 Bill to the Commons:

"They (the National Federation of Housebuilders) say, to summarise their statements, that on the withdrawal of subsidies houses will, in their opinion, be built in very large numbers to supply the whole of the demand shown by the waiting lists of the local authorities, and that this building will continue until there is a margin of vacant houses comparable to that which existed before the war. I submit that it is impossible to neglect the weight of testimony of that sort..." (5)

Circulars to Local Authorities explained that general needs housing provision was to be left to free enterprise, whilst they themselves should concentrate on slum clearance and replacement under the provisions of the Greenwood Act.

The results of this marked shift in housing policy have been the subject of great deal of discussion. (6) Changing attitudes to the provision of housing on the part of Government are inevitably the result of differing political philosophies or of economic constraints and pressures. In this case both of these factors are apparent. In respect of its political philosophy regarding the provision of housing by the State the National Government is generally regarded as having supported a sanitary policy. (7) This harks back to nineteenth century attitudes to the provision of dwellings for the working classes when such action was looked upon as necessary for health reasons but not regarded as a social function. Therefore provision of housing at the minimum possible standard compatible with public health legislation was considered preferable in order to stimulate tenants to improve their circumstances and consequently move into better

private accommodation. This philosophy, which was revived by the Housing Act of 1933 and by subsequent legislation in the 1930s, contrasts sharply with previous Governments' attitudes to the provision of council housing, when a high standard of housing was provided in the public as well as the private sector. Apart from its different political attitude towards council housing the new Government also argued that economic circumstances had forced upon it the abandonment of general needs building. Consequently council housing was seen as a necessary casualty of the reduction in Local Authority expenditure recommended by the Committee on Local Expenditure. (8)

It is the effect on the built form and particularly on the level of garden provision which is central to this discussion however, and there can be no doubt that the policies which the National Government practised between 1931 and 1939 had a very marked effect on both of these. Whereas in the 1920s little difference was apparent between privately built housing and council housing, in the 1930s the differences became extremely marked. Private enterprise continued to build low density single family units with large gardens, but the public sector began to produce an increasing number of flats. Such development often provided a low standard of associated public amenity space and usually avoided private garden provision altogether. Yet there is no evidence to suggest that flats had become any more popular to the householder in the 1920s.

E D Simon commenting on the widespread popularity of the Tudor Walters type cottage commented in 1935:

"It is difficult to see how this standard can be improvedwe believe it is safe to assume that the Tudor Walters cottage may be regarded by town planners as a permanent standard." (9)

Even as he spoke his opinion was being refuted by the actions of Local Authorities engaged in slum clearance schemes.

At first, as Authorities began to exercise their new clearance powers, replacement housing for the displaced occupiers was provided in cottage estates on greenfield sites. The Wybourn Estate of over 1000 houses in Sheffield is a prime example. (10) The housing here is virtually indistinguishable from earlier Tudor Walters development on the neighbouring Manor Estate, despite the Manor being built under a general needs subsidy and Wybourn under a slum clearance subsidy. (See figure 2.5) But once the first slums had been cleared and replacement housing began to be built on the cleared sites themselves, flats were more often employed and the proportion of single family houses with gardens declined.

There are several factors involved in this radical shift in policy from the low density solution to the housing problem to the development of high density flats. The high land values of cleared sites were undoubtedly a major factor. Under the provision of the Greenwood Act extra subsidy was payable for flat building if land costs exceeded £3,000 per acre. Fremantle comments;

"...in London the value of land included in slum clearance schemes is sometimes as much as £10,000-£25,000 per acre." (11)

Although London was, as usual, something of a special case, in that land values were much higher than in the rest of the country, even in Sheffield costs of cleared sites were appreciably higher than greenfield sites. For example the Edward Street clearance area near the city centre cost the Local Authority around £440 per acre in 1932, whilst land at Wybourn on the outskirts of the city was bought for only £121 per acre in 1933. (12) The restricted nature of many of the cleared sites too, demanded high density redevelopment

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in order to rehouse all those persons displaced. Subsidy was payable on the basis of persons displaced and rehoused, not on the basis of new units produced, as had been the case in the 1920s. Consequently there was strong pressure to rehouse all persons displaced by clearance within the Local Authority boundary, and usually on or near the cleared site itself. This feature of the legislation was highlighted by further Government action in 1935 concerning the abatement of overcrowding. The Housing Act, 1935 contained a statutory definition of overcrowding and compelled Local Authorities to eradicate this problem within their own area. Subsidy was available to assist new building only in those cases in urban areas where flats were to be built. As Bowley points out (13) even those Authorities who entered upon slum clearance reluctantly were compelled to take action under this legislation since overcrowding could be defined unambiguously in arithmetic terms. Since the available subsidy was limited to flat building it necessarily encouraged this form of development. Some Authorities managed to deal with overcrowding under slum clearance provisions, but here again the higher subsidies provided for flats encouraged their construction. Finally the Housing (Financial Provisions) Act, 1938 amalgamated both slum clearance and replacement and abatement of overcrowding with a fresh set of subsidies aimed directly at flat production. While the Greenwood subsidy for low density housing as slum replacements was cut from £9 per annum, for a family of four, to £5-10s, the special rates for flats were maintained, thus providing clear evidence of the Government's preference for flats as the prime form of slum replacement housing.

The successive housing acts and subsidies provided by the National Government in the 1930s show a clear evolution of policies in favour of flat building in the public sector in marked contrast to the low density development of the 1920s. As a result the private garden had degenerated from the status of a key issue in residential design to one which was never even considered. So why did this change come about? Part of the explanation has already been suggested. The reasons for concentration on the slum problem and the provision of replacement housing are readily apparent in the lack of success of housing policy in the 1920s. The problems of high land values and restricted inner city sites were reasonable cause for some flat building. But the weakness of the subsidies provided, as counters to market trends, was the overriding factor in the production of flats by Local Authorities in the 1930s. Whilst a housing subsidy is always designed to counter the worst excesses of the market, the problem in this case being slum housing, there are different degrees, in terms of the quality of replacement housing produced, to which that subsidy can extend. There can be little doubt that in the case of replacement of slums by flats in the 1930s the subsidy was sufficient to do no more than provide the basic minimum of a sanitary environment. It would surely have been possible to clear the slums, rehousing some of the original resident in situ and others on peripheral estates in order to keep densities low and provide Tudor Walters type housing with ample garden space provision, had that been the Government's intention, and had the subsidy system been designed to do it. That this was not the case can be ascribed to a reluctance to spend money on subsidised housing which in turn arose from the sanitary view of housing policy taken by the National Government.

The evidence in support of this contention is three-fold. First of all, the record of numbers of dwellings built for the public sector during the period 1933-39 shows a marked lack of enthusiasm on the part of the agencies responsible. By March 1939 only about 245 thousand dwellings had been closed or demolished. This represents about half of the 472 thousand slums identified by Local Authority surveys. Overall only about 255 thousand replacement dwellings were built between 1933-39. (14) Although such a poor performance is in the first instance due to Local Authorities' reluctance to build, to be fair they received very little incentive from Central Government to do more.* Of the government's policy objectives then, the provision of housing by the state came well down the list.

The second feature which suggests that the National Government viewed state subsidised housing as 'second best' is illustrated by the standard of the flats built, which generally compares unfavourably in terms of space standards and amenity with public sector housing produced in the 1920s. The Tudor Walters Report for example recommends an 855 square foot floor area for a three bedroomed dwelling, whilst a typical floor area of a three bedroomed, 1930s flat was around 700 square feet. (15) Also whilst it was recognised

* It is important to point out however that there was tremendous variation between Local Authority performances in terms of slum definition, demolition and replacement building activity. Equally not all Authorities build a similar proportion of their replacement housing in the form of flats. Ravetz A, in Sutcliffe A (Ed) Multi-Storey Living (p122) comments that London for example built 40% of all subsidised dwellings between 1919 and 1939 in flatted form, and Liverpool 20%, whilst the national average was only 5%. However, remembering that with a few limited exceptions such as London and Liverpool, the twelve to the acre standard was universal in the 1920s when nearly four times as many subsidised dwellings were built than in the 1930s, the swing to flat building was significant and represented roughly 25% of all subsidised dwellings built during the 1930s.

by Local Authority architects and politicians, who based many of their opinions about flatted development on the example of continental schemes, particularly Austrian and German, that a high standard of communal facilities was necessary in order to compensate for the difficulties of flat living, in fact the majority of schemes built contained very few communal facilities. Thus the frequently expressed view of architects and planners that schemes such as the Viennese flatted estates were successful because they incorporated shopping facilities, playspaces, schools, creches and health centres in order to compensate for the inherent disadvantage of flat living, was generally ignored in the construction of British flats simply as a result of the Government's financial parsimony. Even an adventurous model scheme such as Quarry Hill in Leeds which is generally regarded now as the most lavish of inter-war flatted developments lacked most of these facilities for most of its life. Consequently the omission of private garden space from most schemes, indeed the absence of any discussion of its value, is hardly surprising considering the practical difficulties involved in providing a plot for each flat on what were usually restricted sites. Quarry Hill is probably unique in respect of its inclusion of small individual garden plots (16) and as already suggested, the quality of many features of this estate far exceeded that of most contemporary flats. It incorporated, for example, passenger lifts, a feature unknown outside the Ossulston Street development in central London, a large scale refuse disposal system, and the rudiments of a district heating system, all of which would not become common features in Local Authority flats for a further twenty-five years.

Typical flatted development of the period was much more stark and lacking in general amenity than Quarry Hill. The example of Edward Street flats in Sheffield is shown in figure 2.6. Most blocks were up to five storeys in height. Anything higher demanded passenger lifts which were usually regarded as prohibitively expensive. In Edward Street, as in most other Local Authority flats of the period, front doors open onto communal galleries and communal stairways, in this case external to the main structure and exposed to the weather, lead down to a common yard. Few schemes exhibit any attempt to compensate for the lack of private garden provision. No allotments are situated within walking distance of Edward Street. Play space is limited in area and poorly provided for. The problem of where to hang out washing has also never been satisfactorily solved even up to the present day. The communal yard is not popular for this use, presumably because of the arduous descent and ascent of several flights of stairs involved, and because of security problems. The communal galleries are therefore the most usual area utilised for drying clothes, though they hardly provide an ideal solution.

The third, and most convincing argument in support of the sanitary view of state subsidised housing taken by the National Government arises from its' attitude to private enterprise building. The existence of state subsidies for house building by Local Authorities was regarded as having an adverse effect on the production of houses by private enterprise. Following the removal of the subsidy this theory was in part proved valid, in that private enterprise was able to produce almost twice as many units as previously. Average production per annum between 1930 and 1934 was 133 thousand. Between 1935/6 and 1938/9 average annual

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production rose to 263 thousand (17). However the increase in the number of houses built by private enterprise did not necessarily mean that the families on Local Authority waiting lists were taken care of. Builders continued to produce the majority of their houses for the top end of the market. Only 41.9 per cent of the dwellings produced by private enterprise builders between 1933 and 1939 had a rateable value of £13 or under and could therefore be regarded as working class housing. (18) Even then a large proportion of the working classes could not afford to keep up the mortgage repayment of around 13s per week plus rates and maintenance costs which such properties entailed, when an unskilled worker's wage averaged only £2-2s per week. (19)

The action of the Government in cutting general needs subsidies and relying on private enterprise to provide low cost housing for the working class when it was incapable of doing so highlights the divisive nature of the policy of slum replacement by low-quality flats. There is some defence for this policy in the recognition that some politicians regarded such flats as temporary housing in a general exodus from the inner city slums to the growing suburbs. Even Quarry Hill for example was regarded by Charles Jenkinson, the Chairman of the Leeds Housing Committee which initiated its development, as a decanting centre. In reality however the new flats quickly became permanent homes for many families. The reluctance of many Local Authorities to enter into large scale slum clearance, and the failure of private enterprise to provide for the housing needs of the working class family therefore condemned many thousands to life in very poor housing circumstances. One aspect of such housing deprivation whether the dwelling itself was a crumbling terraced slum, or a new Local Authority flat was the absence of any private garden provision.

In stark contrast to both the inner city slum terraces and the new flats, a notable feature of the housing produced by private enterprise was the generous amount of garden space provided. In this respect private enterprise housing of the 1930s closely followed the designs and trends of the 1920s. Above all the semi-detached house has come to characterise the development of this period. A typical example is shown in figure 2.7. Perhaps the most important feature of this type of housing for the purposes of this discussion is the density at which it was built. Development rarely exceeded twelve to the acre and was frequently as low as ten or eight dpa. That such a low density standard was generally employed can be attributed directly to the influence of the garden city movement, to the Tudor Walters recommendations, and to the success of estates, both public and private, built at similar densities during the previous decade.

A direct result of employing the twelve to the acre standard was the provision of large garden plots. Even with the cheapest houses, costing between £400 and £500, a typical rear garden would exceed 1,000 square feet in area and, as selling price increased, densities tended to fall and garden sizes became even larger. Jackson in Semi-Detached London cites several examples. (20) Costains provided a 300 feet garden with their £1,180 detached houses whilst at Bookham in 1939 there were £1,150 houses in 250 foot gardens. (It is not clear whether these dimensions refer to total plot length or simply to garden length. Nevertheless a 250 foot plot assuming an average width of 30 feet would produce a rear garden in excess of 5,000 square feet in area.) Front garden plots tended to be larger than those found in earlier Victorian and Edwardian lower middle-class suburbs. The boundary between garden and street also tended to be much

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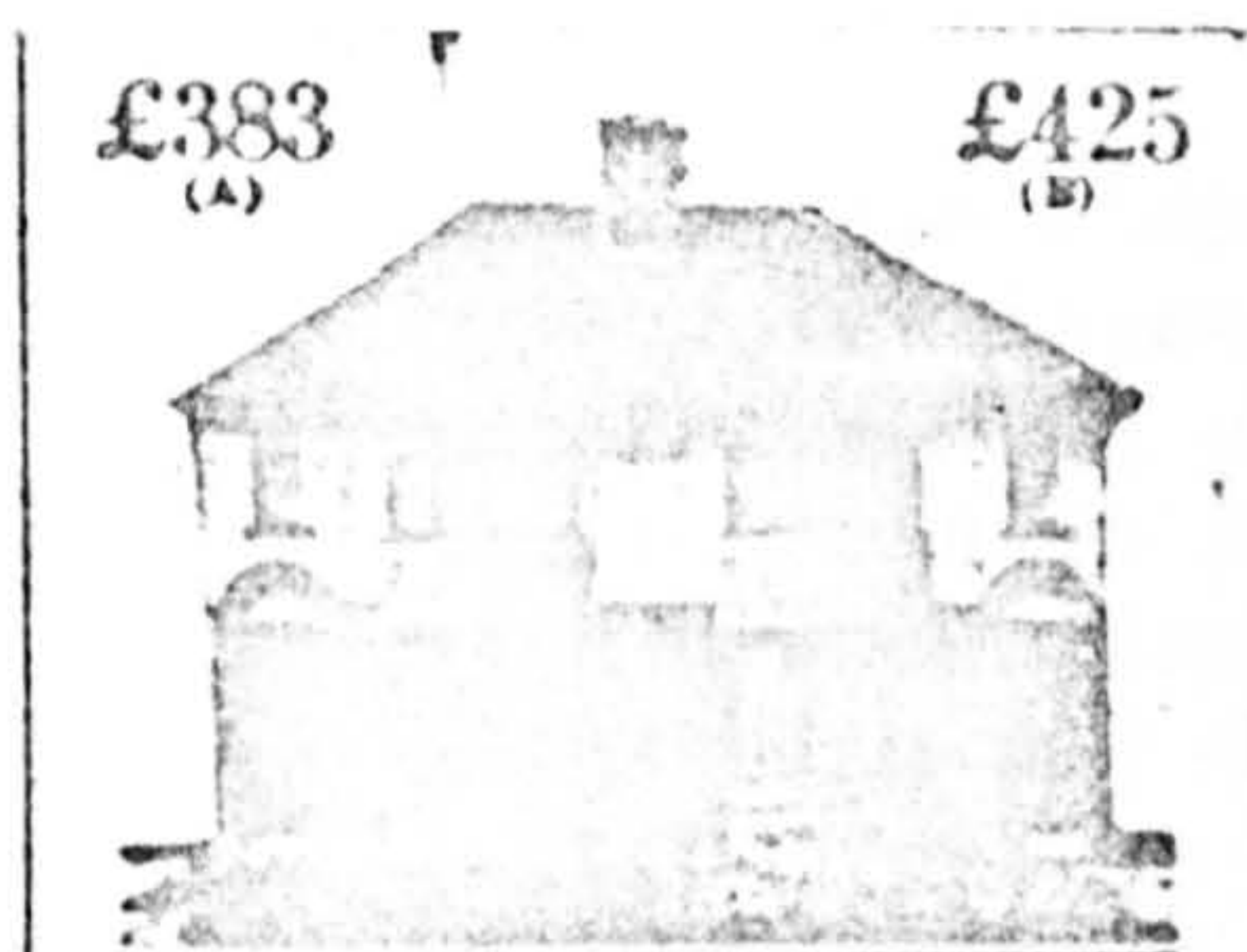
flimsier, a low wall or chain link fence replacing the iron railings and high walls of the Victorians. The front garden therefore appeared more as an integral part of the flow of vegetation throughout the suburbs, emphasised by the use of wide verges and the planting of trees and shrubs alongside the road. The influence of garden city/suburb designs is clearly apparent. In contrast to the earlier garden city/suburb however, plot widths were smaller, 20-25 feet accommodating the cheapest semis, in order to minimise service cost. Plot shape too was usually an unimaginative though functional rectangle, a result of the policy of adopting simple layouts, often following existing roads, which created the phenomenon known as ribbon development, again in order to minimise costs. In this respect the private development of the 1930s must be judged to be an even more dilute form of the garden city/suburb principle in terms of layout designs than were the Local Authority estates of the 1920s.

In common with many of the Local Authority estates of the 1920s many private estates of the 1930s were often lacking in facilities such as shopping and entertainment, a function both of their distance from established centres and of the reluctance on the part of builders to increase their own costs and responsibilities by developing new centres. Even so the attraction of the new suburbs far outweighed the disadvantages. The illusion that a move to a new suburban house was a move back to the countryside where every Englishman had his roots was a powerful one, no matter how far removed from this romantic ideal the reality in fact proved to be. Builders advertisements played on the nostalgic charm of the country cottage, and stressed individuality and the security of home ownership. The maxim that an Englishman's home is his castle was never more persuasive.

Advertisements variously described identical rows of semis as "Cosy Palaces" and "Baronial Halls" and the evocation of rural life by naming roads as Drives, Lanes and Way(e)s was commonplace. (21) The importance attached to the possession of a garden is amply illustrated by its use as a selling point in contemporary advertisements for both new and second hand housing. (See figure 2.8.) As a purely functional area for domestic needs, especially drying washing, a garden must have seemed a tremendous luxury in contrast to the cramped and difficult conditions of life in the inner city. Also the role of the garden as a status symbol is apparent from the increased size of garden available with the more expensive dwellings. The garden then was a major attraction in the move to the suburbs which involved some one and three quarter million families between 1933 and 1939. (22)

The private enterprise building boom succeeded for a variety of reasons. Firstly Government had cleared a way for private initiative by its removal of subsidies to Local Authorities. Secondly economic conditions dictated bold action on the part of the builders. In 1932 Building Society deposits were at an almost embarrassingly high level, so much so that several Societies were forced to cut investment rates from 5 to $4\frac{1}{2}$ per cent, restrict increases in existing investments and limit new investment to a maximum of £50. (23) Steadily falling building costs from 1926 to 1934 also heightened the likelihood of massive activity by private builders. (24) Above all the market was ready to accept a new form of housing. The trend towards smaller families, earlier marriage and less use of domestic servants tended to make the rambling villas of the Victorians obsolete and dictated a more compact easily manageable and smaller house type. Burnett sums up the results of the changes succinctly:

"Changes in social attitudes and values which were, in turn, partly the result of demographic, economic and occupational changes also had important effects on the design and plan of middle-class housing. As home-ownership expanded and



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BRADWAY.—Timber's Corner.—All modern conveniences.—Apply on site, or Robert Jones, Grangecroft, Greenfield rd, Meadowhead. Tel. 43339

BROOMHILL (10 minutes to city).—New Semi-detached HOUSE, with garden and every modern convenience, in quiet residential surroundings; ample room for garage; price £550; no road charges.—Apply 16, Stone Grove, Broomhill.

FIRSMILL AVENUE.—Modern Labour-saving HOUSES, Nos. 44, 61, and 63, now building; prices £500 and £550.—Full particulars on site.

TULLWOOD GARDEN CITY.—Semi-detached, 2 large, 1 small bedroom, lav., bathroom, hall, lounge, dining, kitchen, garage; lovely garden.—Write B 33, Sheffield Telegraph.

SEE THESE WELL-BUILT VILLAS

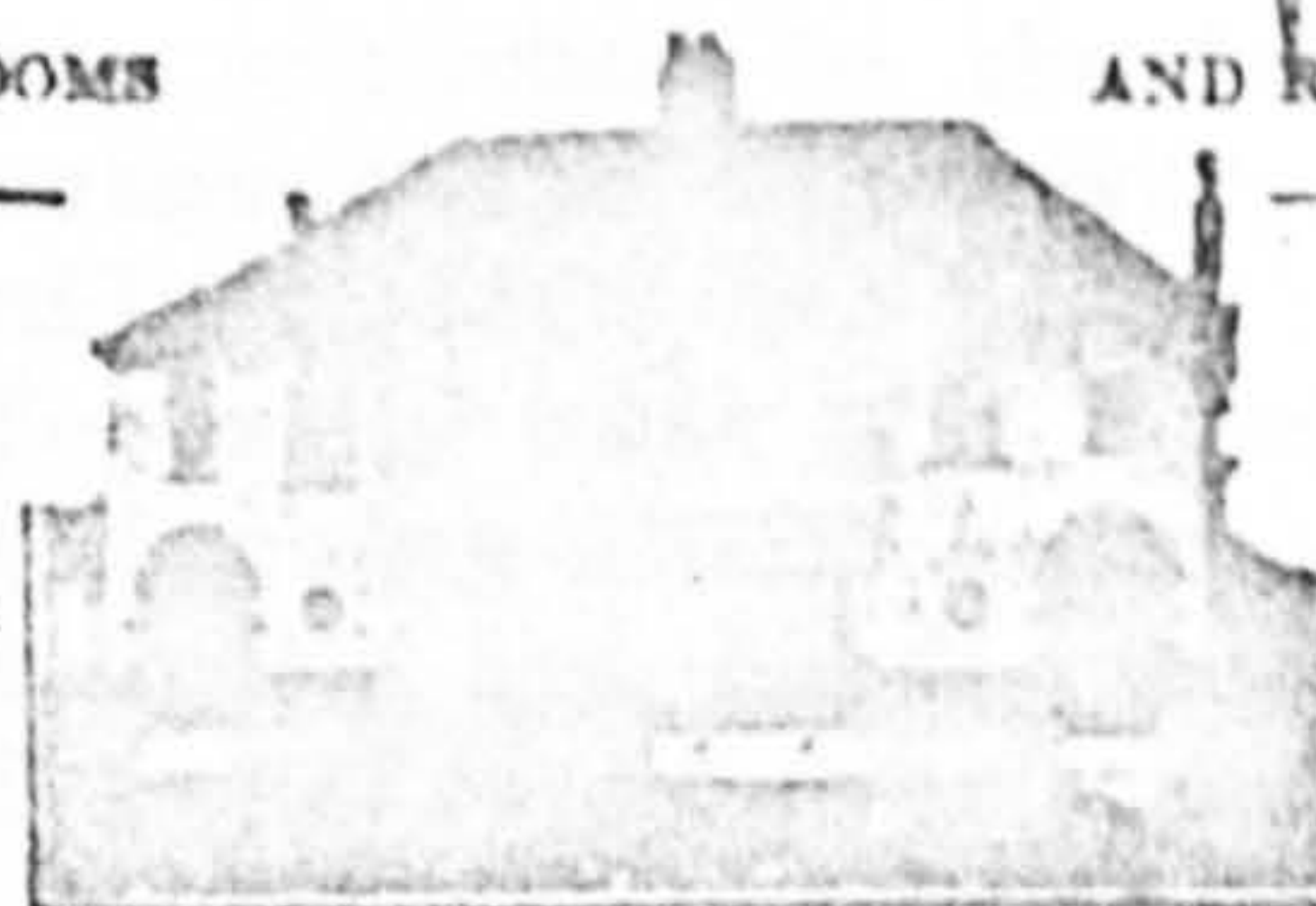
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WITH 4 BEDROOMS
THAT WILL —

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— FURNISH WELL.

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Nearest Completion.

3 Mins. Walk from Bus No. 26.

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See also No. 125, KNOWLE LANE—A GRAND HOUSE for £750. Ready for Occupation.

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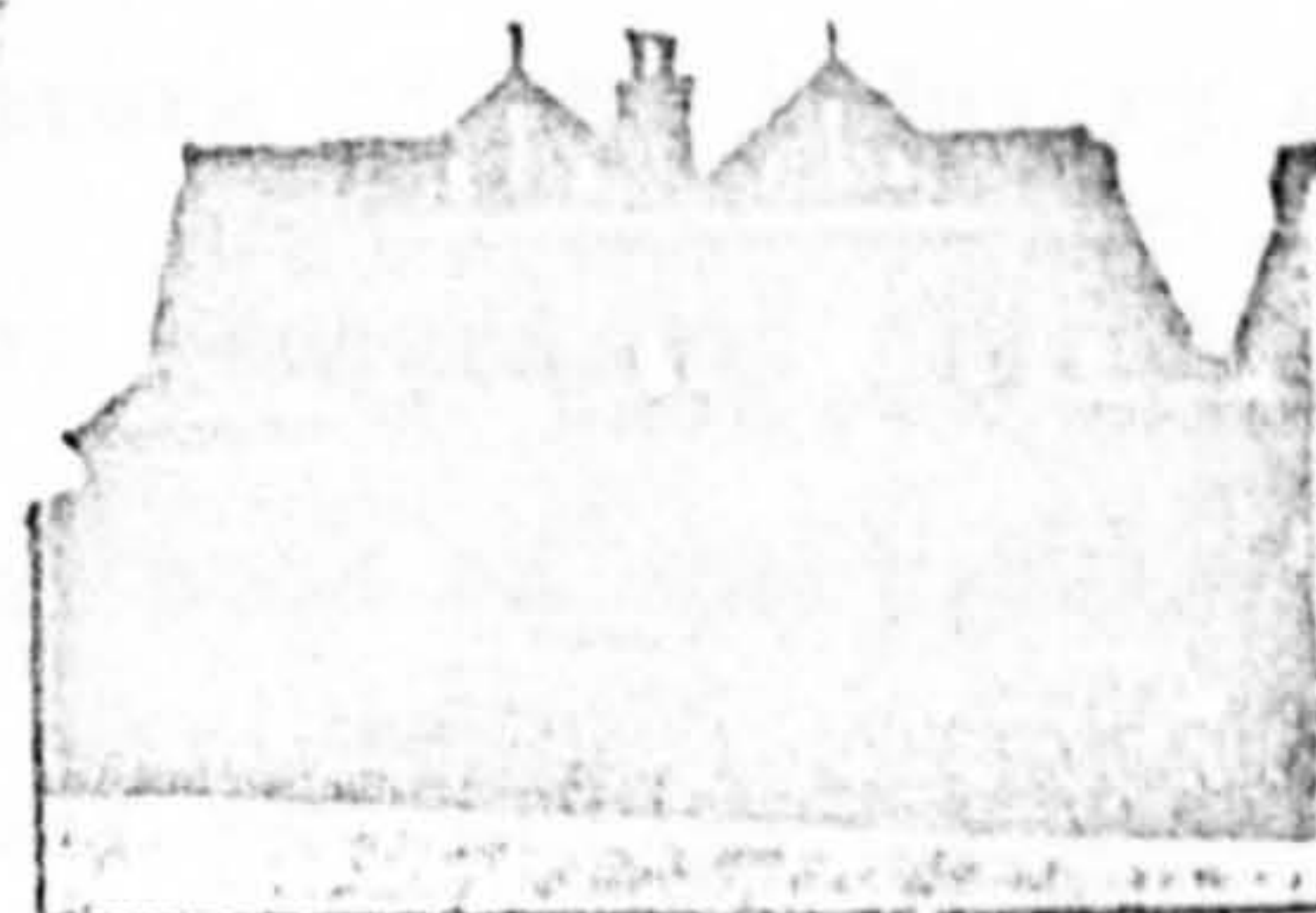
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173, WHIRLOWDALE RD., MILLHOUSES, SHEFFIELD, 7

FIRST USER OF CEYLON (EL DAP & SOUND RESISTING BRICKS

TERMS ARRANGED TO SUIT PURCHASERS Phone: 70184, 71250



Houses in Bents Road.

Established a Century and no connection with any other firm.

HIGH STORRS ESTATE,

FALKLAND ROAD, OFF RINGINGLOW ROAD

(10 MINUTES FROM THE CITY ECCLESALL GATE ROUTE).

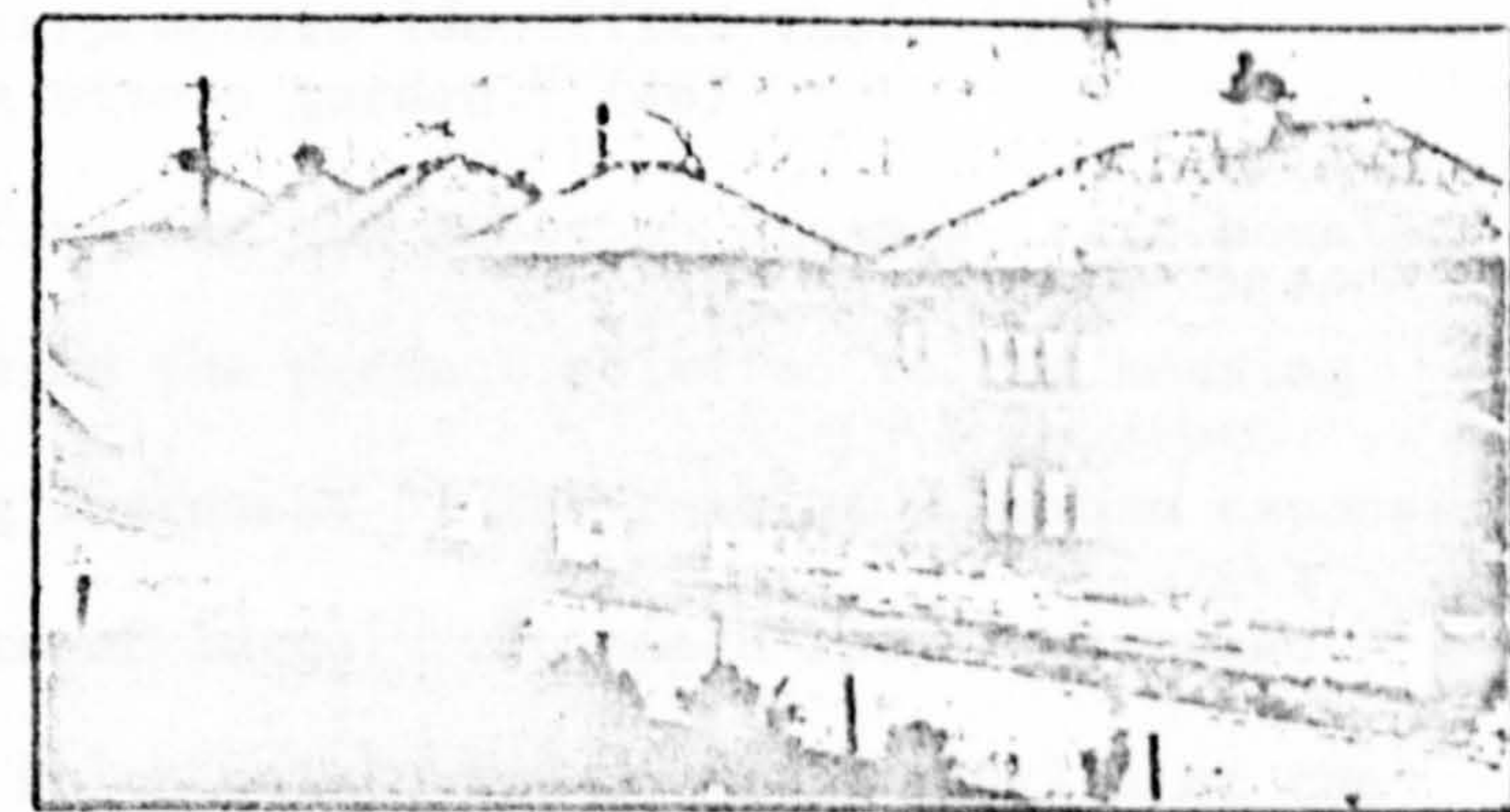
FEW MINUTES FROM THE HIGH STORRS SECONDARY SCHOOL—A USEFUL CONSIDERATION FOR PARENTS.

ARCHITECTURALLY DESIGNED

DETACHED AND SEMI-DETACHED VILLAS,

OCCUPYING UNPARALLELED VIEWS. NO HOUSE OVERLOOKED.

FROM £500.



These houses are built with WEST FACING BRICKS, Sand and Cement. BLUE BRICK damp course, ensures a house FREE FROM DAMPENESS.

There is NO SHOW HOUSE. Residents on this estate, however, invite prospective purchasers to view.

Figure 2.8: House advertisements from Sheffield's Star and Telegraph illustrate the type of housing built for owner-occupation in the 1930s and the attraction of images such as the 'villa' and the 'garden suburb'.

family size diminished the importance attached to the home constantly increased, and in this respect the inter-war generation was perhaps the most family-minded and home-centred one in history. What had formerly been the interest of a narrow group in society - in selecting their house, furnishing and decorating it, maintaining its fabric and cultivating its garden - was becoming diffused over a much broader stratum..." (25)

Low land prices on greenfield sites had enabled the building industry to maintain the relatively low density standards of the garden city/suburb. The conservative nature of the industry dictated a continuation, albeit slightly adapted, of the house-types of the 1920s and the result was a building boom of spectacular proportions which satisfied public demand almost perfectly. A Mass Observation survey in 1938 showed that the low density estate, whether public or private, containing cottage dwellings with gardens, was the overwhelming preference of the man in the street. Only one in twenty preferred to live in a flat; 60% of Local Authority tenants living in flats expressed a preference for a house and garden and;

"...a majority of all respondents identified their 'ideal house' as a small house with a garden." (26)

For those who could afford the new suburban dream, private housing development in the 1930s seemed the perfect solution to the housing problem. However increasing awareness of the rate of suburban expansion and the environmental effects of largely unplanned sprawl provoked concern in official circles which culminated in the formation of the Marley Committee. The Report of the Departmental Committee on Garden Cities and Satellite Towns, chaired by Lord Marley was published in 1935. (27) A distinguished member of the committee was Raymond Unwin. In the course of its deliberations on the future need for garden city developments the committee considered the two extreme forms of residential development currently taking place, namely high density

flats in the inner cities, and the low density suburban sprawl away from the older centres. The advantages and disadvantages of both were noted and discussed and general agreement was reached that neither form was ideal. Flats were criticised because they provided poor living conditions and caused traffic congestion. Suburbia was not favoured because of the waste of time and energy involved in transporting workers to the city centre, because of unspecified 'sociological' problems, but most of all because of the waste of land involved in largely unplanned suburban development. This latter point was explained as follows:

"The scattering of building patches, both on account of the enormous area affected compared with that actually used for sites of buildings, and of the extent to which the frontage of roads over which people pass is occupied, has given the impression that the area of land occupied by house sites is far more extensive than is actually the case, and that there is insufficient space available for the spread of the population outwards. Even on the extravagant assumption that the whole population of the County of London were to migrate into the outer area of Greater London and join the existing population already resident there leaving the County more empty of residents than the City is today, the whole of these families of Greater London housed in cottages at ten to the acre would only occupy 377 of the 1,729 square miles available in Greater London outside the LCC area..... The problem in fact is not one of the amount of space but of its proper utilisation." (28)

This argument, of which Raymond Unwin is the likely author, formed the basis of the Committee's recommendation to extend the development of garden cities in order to reduce suburban sprawl and remove the necessity for high density inner city flats. Of prime importance is the reference to "ten to the acre". Higher densities were definitely not either favoured on social grounds, or thought necessary on economic grounds, and therefore the traditional garden city/suburb values, including the provision of large private gardens, were advocated by Marley. Above all however the conclusions of the Marley

Committee were themselves a recommendation for much stricter planning control over housing development in order to obviate the blatant waste of land which typical private development in the 1930s usually created.

The recommendations of the Marley Committee were largely ignored in the five years following their publication. High density flat building continued in the inner cities, and little effort was made to bring a greater pressure of control over speculative suburban development. No new garden cities were planned or started. In the light of this inactivity Government housing policy in the late 1930s can only be judged as a continuation of the laissez-faire principles already established. Nevertheless the Marley Committee Report did have an influence in later years. Slum clearance and the private building boom were halted by World War II and, by the end of the war, conditions were suitably charged for fresh philosophies and policies concerning housing provision to have their impact. It should not be inferred that the legacy of the 1930s was not important to the years which immediately followed the war, or even to consideration of housing problems and policies today, but by 1945 new factors such as a nationwide statutory planning system, a drastic housing shortage, and not least a new Government, committed to the provision of good quality housing for all, augured a change in direction, and inevitably a change in the form and distribution of housing produced.

In the history of the private garden however, the period between 1930 and the outbreak of World War II in 1939 is crucial. During this time the aspiration to own a house with a decent sized garden was realised by one and a half million families, enough to transform owner-occupancy into the common aim of almost every family in years to come. The shift towards owner-occupation as the largest tenure

type really got underway in the 1930s and apart from a hiccough caused by World War II and its aftermath, has continued steadily ever since. It was during the 1930s then, that the private garden can truly be regarded as becoming the characteristic feature of English housing which is so frequently commented upon by continental Europeans. At the same time however, Local Authority housing, for the first time in its short history since 1919 began to appear in flatted form with no consideration given to the provision of private gardens.

The combination of two such diverse trends in housing policy has in the long term produced a situation where a social stigma is frequently attached to life in Local Authority flats. The effects of this social prejudice against living in Local Authority flats are manifest today in the multiplicity of social problems, notably vandalism and petty crime, so prevalent on many flatted council estates. Of course the root causes of such problems relate to many social as well as physical facets of life on these estates, but nevertheless the divisive policy of adopting a starkly different form of housing in the public sector from that enjoyed in the private sector, only serves to exacerbate these problems. At the heart of the contrast in form between public and private housing is the question of garden provision. Use of flats almost inevitably means communal rather than private amenity space utilisation, and as 1.4 shows, public space cannot be regarded as a direct substitute for private garden space. Thus the decision to adopt flats in the public sector and abandon the garden as a primary design consideration in residential planning must be regarded as a far reaching and ultimately disastrous policy.

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During the six years of World War II very little house building took place in Britain. At the same time enemy bombing seriously reduced the existing housing stock. 475 thousand homes were destroyed or made permanently uninhabitable and many more were damaged.

(1) A steadily increasing population and the trend towards a greater number of smaller households produced an acute housing shortage at the end of the war. Bowley estimated the overall shortage at 965 thousand. Of this shortfall working class houses formed the major part. There were three reasons for this imbalance. Firstly, private building, which catered mostly for the middle class buyer, had continued longer into the war than had Local Authority building. Secondly, most of the housing destroyed by the bombing was occupied by working class families. Thirdly, despite the high rate of house building in the 1930s, the overall shortage of cheap housing had not been overcome. (2) The time was ripe therefore for large scale intervention into the housing market, just as had occurred in response to a similar shortage following World War I.

During the war a great deal of thought was given to the replanning of towns and cities and to increasing the housing stock once the war ended. The Barlow Report, 1940, and the Uthwatt Report, 1942, were extremely influential upon the package of planning and related legislation post 1945. London was the subject of two major plans by Forshawe and Abercrombie which later became models for much of post-war planning activity over the whole country. Meanwhile housing was the specific subject of a major study by the Dudley Committee which resulted in the Housing Manual, 1944. (3) Whilst detailed legislation was left until after the war, since shortages of materials and labour precluded any house

building before 1945, it was generally accepted that Local Authorities would be the prime providers of housing once building started again. It was in this context that the Dudley Committee examined the form which the new housing might take and published its recommendations.

As the first major piece of Central Government advice on housing design since the Tudor Walters Report, the Housing Manual, 1944 was an important publication and was intended to set the standard for local Authority housing for many years to come. Indeed its authors intended that its influence should extend even outside the public sector;

"...it is essential that the housing schemes promoted by local authorities should set a good standard for the country..." (p1)

In keeping with the practice of the Tudor Walters Committee, witnesses were called and the views of housewives, architects, and;

"...a very large number of organisations and persons with an interest in housing..."(p8)

were solicited. Much is made in the introduction of the attention paid to the housewife's or 'consumer' point of view;

"...a consideration which should always be present in the minds of those concerned in the design of dwellings..." (p8)

In the Manual's final recommendations regarding numbers and sizes of rooms, amount of internal storage space, kitchen facilities and space heating, the 'consumer' view was given a great deal of consideration. However in respect of external layout design this does not always appear to have been the case.

The Manual considers the layout of future housing by referring to past experience. A distinction is drawn between the long rows and close development of working class districts of the nineteenth century and the more open developments of the 1920s and 1930s. The

discussion continues:

"It has been suggested, however, that such development has sometimes resulted in an unregulated sprawl which had the advantages neither of town or country. The establishment of units which are either self-contained neighbourhoods in themselves or are properly linked to existing communities will counteract this tendency. The layout of a site must do more than provide open conditions for each house; it must provide for the other buildings and facilities needed by the different types of person and family groups on the estate." (p12)

This reference reflects both historic and contemporary opinions. On the one hand it echoes the findings of the Marley Committee (see 2.3), and on the other, indicates the importance attached to the idea of the neighbourhood in contemporary planning theory. The idea that cities should be encouraged to develop as a number of neighbourhoods or cellular divisions of population, each dependent on a particular set of social facilities, such as shops, schools, and recreational areas, had originated in the USA in Clarence Perry's New York Regional Plan, 1928. In Britain the frequent lack of any social and community facilities in the uncontrolled growth of suburbia in the 1930s was naturally a cause of complaint from residents and planners alike. The neighbourhood idea, whilst it was purely theoretical, since no work had yet been undertaken to test its validity, was seen as an answer to this problem and was adopted by the growing planning profession as a basis for post war residential design. Consequently neighbourhoods of five to ten thousand people are suggested in the Housing Manual, 1944 (p 11).

The Manual also considers the question of the density of new development in some detail, and recommends a system of density zoning in concentric rings emanating from the city centre as shown in table 2.1 below.

Table 2.1: Density Zoning

	<u>Persons per acre</u>	<u>(Dwellings per acre)</u>
Open development	30-40	(8-10)
Outer ring of town	50-60	(12-15)
Inner ring of town	75	(18)
Central areas	100	(25)
Central Area (large town)	120	(30)

Source: Housing Manual, 1944 HMSO p14

Such a system of zoning was considered viable and necessary, firstly because of the high cost of land in central locations, and secondly because of the desire to 'tighten up' development and avoid a repetition of pre-war suburban sprawl, both for aesthetic reasons and in order to cut down on commuting time. Although the Manual points out that these figures were not to be interpreted too strictly it is apparent that any housing built nearer the centre than the outer ring (ie within the density gradient 75-120 persons per acre) would necessarily contain a proportion of flats and be capable of providing only minimal private garden space with those conventional houses which it was possible to include. The average size of garden which would result in such development would also be much smaller than the optimum 800-1000 square feet recommended in section one of this thesis.

Flat living and the absence of private gardens were features which contemporary social surveys had shown to be unpopular, however. The Mass Observation survey Enquiry into Peoples Homes, 1943 (4), had shown that a majority preferred a house with a garden and that only one in twenty respondents preferred to live in a flat. A study of Birmingham by the Bournville Village Trust had found that over 90% of respondents preferred a garden (5). The Manual itself does not ignore the subject

of private gardens. It admits that;

"...the great majority of people prefer to live in houses with gardens..."

and recognises that there may be a...

"...minority who prefer to live in flats eg single people and some childless couples or families without young children..." (p15)

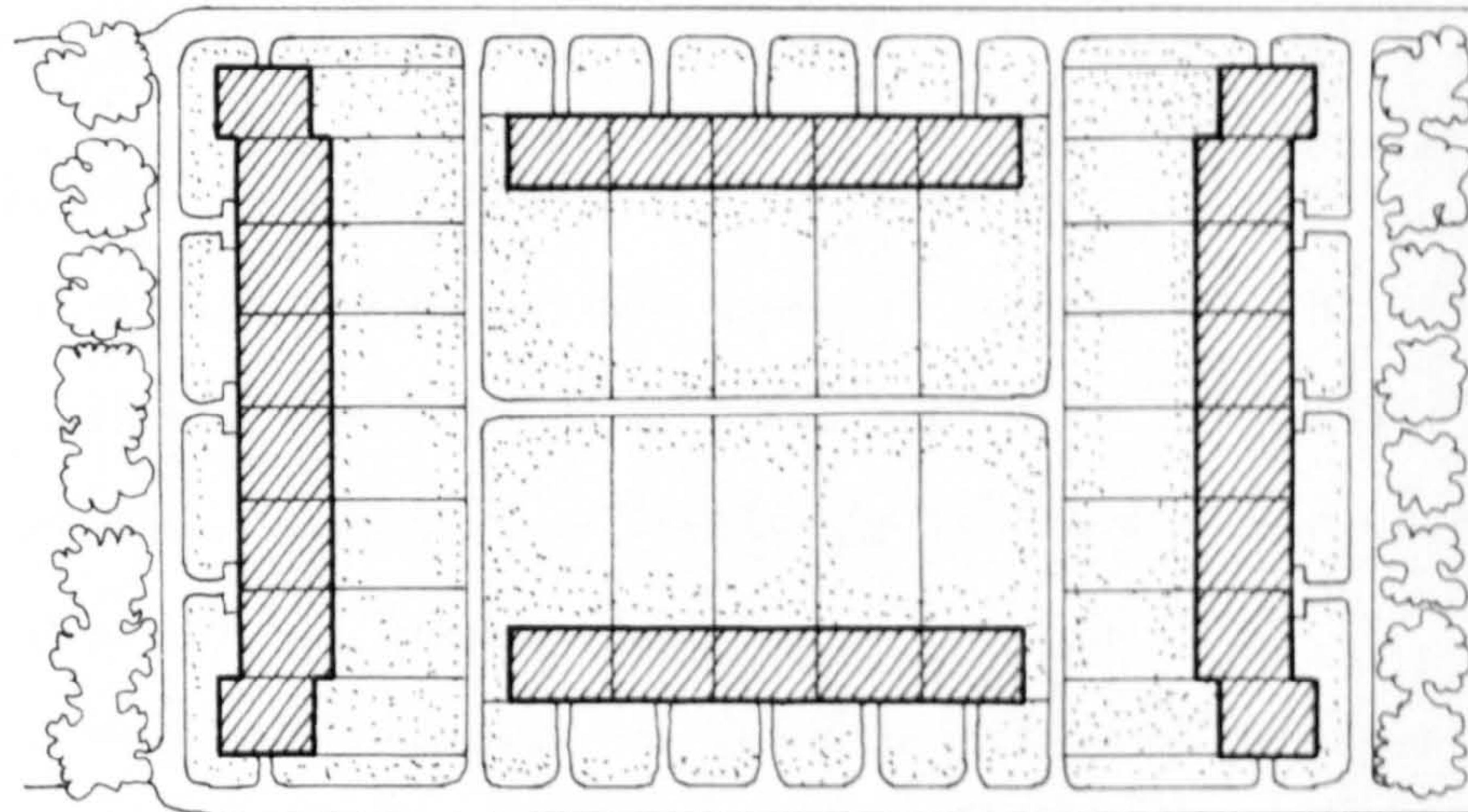
In several of the model schemes illustrated in the Manual private gardens are clearly envisaged, not only in relation to conventional two storey dwellings, but also with maisonettes and ground floor flats. Figure 2.9 shows two examples from the Housing Manual, 1944. But the function of the private garden is never examined in detail. When discussing desirable spacing standards to allow adequate privacy and sunlight/daylight in the dwelling it is noted that;

"...in open development, the space about buildings will be governed by the size of gardens. Where a higher density is required the need for adequate daylight and sunlight will be the governing factor." (p16)

But in terms of function the garden is regarded as nothing more than a space-filler between blocks to allow for other technical standards. As for garden size, the sunlight angle employed* produces typical spacing between blocks of seventy feet. Thus rear garden lengths of 35 feet and front plots of between 20 and 10 feet in length are the usual product of the use of this standard. Yet desired size is a feature which is never discussed explicitly. Even when analysing the relative merits of wide and narrow fronted houses, it is the architectural merit of broad fronted houses which is commended rather

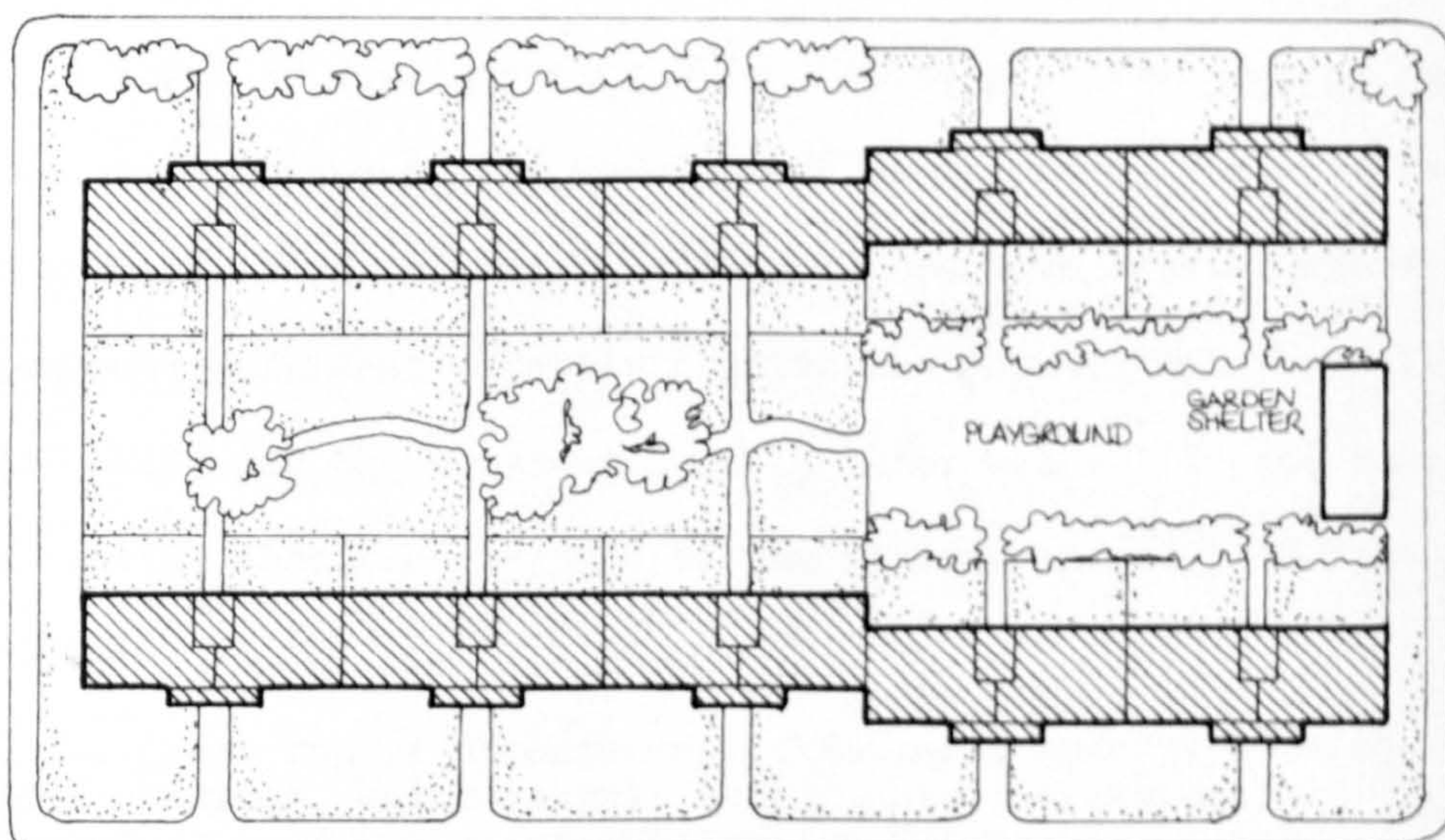
* The sunlight angle recommended is 18° at ground floor sill level. This produces a typical between block spacing of 70' for conventional 2 storey houses. The standard is therefore substantially the same as the older Tudor Walters one.

Fig 2.9 OPEN SPACE PROVISION IN THE HOUSING MANUAL 1944



Terraced houses

Flats with gardens



Source: Ministry of Health- Housing Manual,
HMSO 1944 p43, p47

than the larger gardens which generally result from the use of broad frontages.

A basic contradiction is thus apparent in the advice given by the Housing Manual, 1944. On the one hand the provision of gardens is seen as important, but on the other the constraints of density are seen as more important. Thus;

"...in areas where high densities are unavoidable flats will be required even for families with children.")p23)

Quite unequivocally the assumption was that density was the overriding constraint and thus the problem of high inner city land values was bound to condemn a proportion of residents to flats and to conventional dwellings with minimal garden space.

The contradiction between the recommendations on density and garden provision is paralleled by another related aspect. Emphasis was laid early in the Manual on the importance of the consumer's point of view. While this was generally adhered to in the case of the internal design of dwellings, in the case of external layout it obviously was not. The overriding interests of density over popular desire for garden space is proof of this argument. In this respect the Housing Manual, 1944 was a milestone in the development of planning, since it is the first example of a Government advice document on housing where professional judgement directly contradicts popular opinion. It was a trend which was to be exacerbated in later years. At the outset the Manual states that the standard of new housing should also take into account;

"....questions of arrangement, taste, and harmony with the surroundings, which largely depend on a professional knowledge and its right application." (p9)

That such questions should be considered solely the preserve of the professional was in the long term to the detriment of housing and to

the detriment of the private garden in particular.

It was nevertheless inevitable that the poor quality of land use planning in the past should produce a generation of professionals confident in the validity of their own opinions and intent on avoiding such mistakes in the future. An example of this phenomenon was Patrick Abercrombie, who was responsible for two further pieces of work during the war which were both influential and prophetic of future trends in land use planning. Abercrombie's County of London Plan, 1943 (6) and his later Greater London Plan, 1944 (7), because of their prestigious nature and subject, and the thorough way in which they were carried out, have served as models for much subsequent work. The importance of Abercrombie's work to this thesis centres on his ideas about the density at which London should be developed. In the earlier County of London Plan his recommended densities are particularly high, in the region of 100-200 persons per acre net. Such a figure requires a high proportion of flats. As a result of his recommendations, Abercrombie was strongly criticised by Frederic Osborn, a major proponent of a policy of decentralisation based on garden cities. In a letter to his friend Lewis Mumford, Osborn comments:

"The County of London Plan is a profound disappointment. It talks the language of 'decentralisation' and plans to slow up the process as much as possible.....But I could not have believed that any planner could state in full detail the case for Decentralisation, and then produce a Plan that doesn't do the main thing necessary - permit the majority of people to have decent family homes. It's all the more extraordinary because we have had, in the last year or two, every conceivable kind of opinion survey on the type of dwelling desired - housewives, men in the services, women in the services, factory workers, rural workers, and cross-sections in every direction - and they all show that 90 to 95 per cent want houses and gardens and don't want flats." (8)

Osborn goes on to account for the high densities proposed in the plan as arising from political fears on the part of the LCC of a drop in

rateable value in the inner areas and a loss of the slum electorate. He comments however that the plan, which envisaged 75 per cent of London families being rehoused in flats, was impracticable anyway, since the suburban sprawl was bound to continue. He concludes;

"I continue to point out that planning the centre at much lower density is in the long run a wiser financial policy, and that new towns are in every way better than a continued suburban sprawl." (9)

Osborn's criticism of Abercrombie's proposed densities for London epitomises the argument on a much broader front between the supporters of urbanisation and those in favour of decentralisation. Osborn's life was devoted to promoting decentralisation, the designation of new towns, and a reduction of high central area densities to enable every family to live in a house with a garden. He argued in fact that twelve to the acre is not an overgenerous space standard and that any density higher than this is intolerable to the majority. (10) Such arguments however, directly counter a policy of density zoning as illustrated in Abercrombie's London plans and the recommendations of the Housing Manual 1944. The result of the opposition of these two diverse, yet strongly held, viewpoints was a compromise. Abercrombie's later Greater London Plan (1944) was not so vehemently criticised by Osborn since it advised lower densities than the County of London Plan, an average of 100 persons per acre rather than 136, and incorporated proposals for eight to ten satellite new towns outside London which would decant excess population from the inner area.

Indeed post-war Government policy as a whole shows a mixture of ideas concerning density. On the one hand concentric density zoning was implicitly adopted in most established cities (11), yet on the other, the Mark I new towns such as Basildon, Bracknell, Harlow and Hemel Hempstead, which were designated between 1947 and 1950 were

designed at uniformly low densities with no increase in concentration towards the centre. In this respect they follow earlier garden city designs very closely. Thus the latter years of the war and its immediate aftermath represent a period of debate and change in housing and planning policies. The conflict between the supporters of a policy of low density decentralisation and those who saw high density as both a virtue and an economic necessity, was not clearly resolved by the late 1940s, although as this thesis will show later, proponents of high density gradually came to dominate housing and planning policies in the 1950s.

The wartime debate over future policy in town planning and housing was reflected in the diverse actions of several Local Authorities once the war was over. Several large cities, London and Liverpool being the prime examples, resumed their slum clearance programmes, which had been interrupted by the War in 1939, and built thousands of replacement flats, many of which were modelled on pre-war designs. Leeds planned an inner ring of high (up to ten storey) flats modelled on Quarry Hill. (12) Sheffield meanwhile did not show itself to be as committed as Leeds to flat building. Several schemes ^{begun} before the war, including Duke Street and Edward Street flats, were completed but an overall policy of general needs house building rather than slum clearance was chosen. Accordingly infrastructure of roads and sewers was laid down for low density housing at Parson Cross towards the end of the war, using prisoner of war labour, in preparation for the Government lifting its restrictions on house building. (13) A large estate of low density houses was subsequently constructed on this site.

Apart from the division of opinion between Local Authorities over future policies in housing, and the debate at a national level

concerning the choice between decentralisation and concentration of development, there were other powerful influences on housing policy following the war. The experience of victory in the war, which had necessarily demanded a high degree of Central Government co-ordination and control, suggested that the achievement of social policy objectives was equally possible given similar Governmental direction. The Labour Government of 1945 set itself a huge task of social reform, involving the establishment of universal secondary education, the national health service, and a large scale general needs housing programme. The new Minister of Health, Aneurin Bevan, believed that;

"...to build good houses for poor people on a huge scale was something that had never been accomplished in modern industrialised societies." (14)

It had been attempted before, during the 1920s, but the perennial problems of providing good quality housing at low rents had defeated that programme. Bevan demanded quality, which he interpreted as meaning high internal space standards (following the recommendations of the Housing Manual, 1944), low density (around 12 dpa), and large private gardens. He qualified his demands by commenting that;

"...while we shall be judged for a year or two by the number of houses we build, we shall be judged in ten years time by the type of houses we build." (15)

Local Authorities were provided with the generous subsidy of £16-10-0d per annum per dwelling for sixty years by the Housing (Financial and Miscellaneous Provisions) Act, 1946.

The type of housing thus encouraged by the legislation did not always follow the recommendations expressed in the Housing Manual, 1944 in its external layout and density. In this respect much of the housing built by Local Authorities between 1946 and 1949 represents a victory for the decentralists, for the consumers, and for the

private garden. As always however, local circumstances exercised an important influence on the final form. Thus Birmingham continued its tradition of low density suburban expansion mainly because there was plenty of land available for further growth. (16) Liverpool and London, as already mentioned, both continued with many flatted schemes planned before the war, and began experimenting with new designs for multi-storey living. Sheffield was not yet feeling the effects of the land shortage which it was to suffer a decade later, and therefore was able to develop Parson Cross estate at low density. (See figure 2.10) Nevertheless schemes for mixed development and higher inner city densities were also being discussed at this time for the Netherthorpe and Park areas where pre-war slum clearance and bomb damage had produced new sites.

Initially the Labour Government was successful in its housing targets. Completions steadily increased up to a peak of nearly 228,000 in 1948. (17) Financial constraints, however, caused by an over-optimistic programme of reform and expenditure in the aftermath of the war, and by the conditions imposed by the Marshall Aid agreement, severely curtailed the housing programme from 1948 onwards. Meanwhile, professional discontent with the often dull and unimaginative appearance of many of the new housing estates was growing. Birmingham at this time for example, experimented with materials and house designs within estates in order to try and relieve the visual monotony of the development. (18) By 1949 therefore the Government found it necessary to commission a further housing manual, the Housing Manual, 1949 in order to achieve a change in direction in housing policy.

The new Manual laid a greater emphasis on flats for smaller families and single people than on three bedroomed family houses. It

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also urged a policy of mixed development of flats, houses and maisonettes in order to produce more visually attractive housing and to increase densities. Professional thinking, as illustrated in the Housing Manual, 1949 shows an increasing tendency towards urbanisation and a belief in the social and aesthetic benefits of close grouped, medium to high density development. The professional desire to develop an urban rather than suburban quality in new housing layouts generally precluded the large scale inclusion of private gardens, since these tend to use up a lot of space between blocks and destroy any attempt at massing of buildings and the creation of solid or enclosed vistas.

A useful analysis of the Housing Manual, 1949, was made by Mellor who suggested, in a contemporary article in Town Planning Review (19), that financial stringency had forced a change of direction in government housing policies. He also noted that council house rents were once again denying the poorest families access to Local Authority housing. High rents, it was generally agreed, stemmed from the high cost of housing designed according to the Housing Manual, 1944. The obvious solution therefore was to reduce standards, thereby cutting building costs, and bringing down rents. Mellor's suggestions for achieving these economies include standardisation of materials to enable speedier construction, and the 'tightening up' of layout to enable savings on services to be effected. In respect of this latter suggestion he warned against the possible use of communal gardens because of the maintenance costs involved:

"The provision of common gardens requires careful examination from the point of view of reducing maintenance costs to a minimum, and carefully planted or paved cobbled forecourts might be an attractive alternative in areas of high density. A shilling or one shilling and sixpence per week added to the rent for the services of a communal gardener

may appear a convenient and economical arrangement by middle class standards but this could be a serious additional burden to a family with a small income who had previously had no garden of any kind." (20)

Why private gardens are not suggested as a means of overcoming the expense of public maintenance is an enigma. Yet the omission of any such suggestion is indicative of prevailing professional attitudes and in all likelihood a result of the great amount of attention paid to the visual aspect of new housing.

There is in fact a marked emphasis in the Housing Manual, 1949 on the visual and aesthetic quality of new housing schemes.

"The successful grouping of buildings depends upon the relationship of the building masses to each other, to the street and the space about them, and to their proper setting in the landscape."

"Unity and character are best achieved in low-density areas by the use of terraces and semi-detached housing in contrast with blocks of flats, and public buildings, and in other areas by a mixture of three-storey terraces and multi-storey flats and maisonettes."

"An estate comprised almost entirely of two-storey semi-detached houses is monotonous." (21)

Such sentiment sprang in part, no doubt, from reaction to the visually unattractive and monotonous suburban development of the 1930s and the immediate post-war period. Equally important however was the influence of the Modern Movement and in particular the radical Swiss architect Le Corbusier. Early in his career Le Corbusier had suggested residential areas made up of high tower blocks set in large expanses of open parkland.(22) The influence of his model schemes in the education of generations of architects who were beginning to assume positions of responsibility during the late 1940s should not be underestimated.

Whilst the Housing Manual, 1949 generally advises a policy of 'mixed development', which Le Corbusier never advocated per se, much

of the design advice for high blocks contained in the Manual does show the influence of Le Corbusier. Furthermore this influence is graphically displayed in built form at the London County Councils' (LCC) model estate at Roehampton, which was completed in the late 1950s but designed in the late 1940s. It contains a high proportion of multi-storey flats set in mature parkland. At the time of its conception in 1949, Osborn was strongly critical;

"...the LCC has announced a new housing project at Roehampton, an open suburb six or seven miles from Charing Cross, where in 1921-7 they built an estate of 1200 houses at about twelve houses an acre (maximum at one point was fifteen). This is one of the best and most attractive interwar schemes only to be criticised on the ground that suburban extension was the lesser of two evils. In my London's Dilemma I deplored the choice between houses with gardens plus straphanging, and flats near work. This new scheme will house 21,000 persons at twenty-eight dwellings an acre in a suburb; so we have got to multi-storey flats plus straphanging." (23)

Roehampton is an almost perfect example of the recommendations of the Housing Manual, 1949 put into practice. Its mixture of high and low rise and the all embracing sweep of its magnificent landscaping give it an architectural unity and aesthetic balance lacking in most previous Local Authority developments. But a judgement based on visual criteria alone is never wise where housing is concerned. Osborn's criticism detects the fallacy of such development, now clearly revealed in practice. Whilst there may be some justification in high inner area densities, to deny the overwhelming demand for two-storey houses and gardens in a development built in a suburban location appears absolute folly. Yet Roehampton set a precedent, and during the 1950s and 1960s many suburbs saw the growth of similar 'mixed development' as Local Authorities emulated the model schemes of the LCC and sought relief to the visual monotony of their suburbs by punctuating the skyline with the occasional high tower.

The recommendations of the Housing Manual, 1949 called for more variety of housing types. Most Local Authorities had concentrated on the construction of conventional two-storey family houses since the end of the war. Sheffield for example had developed several estates of low density family housing at Foxwood, Richmond, Littledale and Woodthorpe (see figure 2.10) and these are typical of development in many cities at this time.(24) The new Manual suggested that:

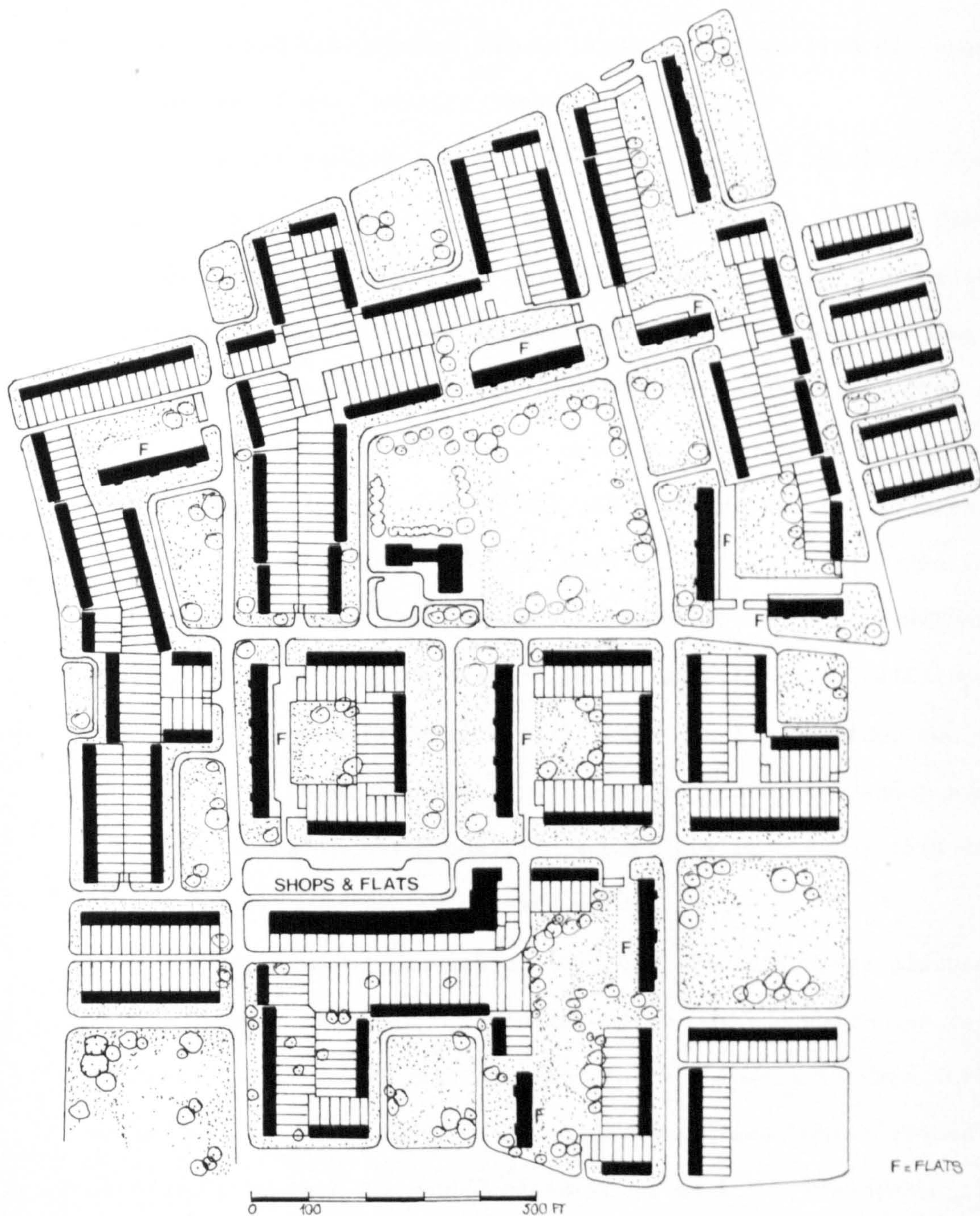
"The long-term housing problem calls, however for a much greater variety of types of houses, some larger, some smaller, than the normal family houses in order to meet in a balanced way the varying requirements of the population as a whole." (p11)

Just as in the Housing Manual, 1944 there was a recognition of the desire of families for conventional accommodation with gardens:

"Most families with children would rather live in two-storey houses with gardens than in a block of flats, and it is believed that this preference will readily be extended to the three storey house with garden in those areas where development has to be at relatively high densities, such as in the 100-120 habitable rooms per acre zone." (p47)

Yet the densities recommended by the Manual, just as in the 1944 version, demand a proportion of flats. Three-storey houses and maisonettes were seen as methods of keeping the proportions of flats down, and in the case of both these types, private gardens are shown on the sample schemes illustrated. (See figure 2.11) Yet in contrast to the examples from the Housing Manual, 1944, shown in figure 2.9, no private gardens are shown with flatted development. The density requirements of the 1949 Manual are, if anything, higher than the 1944 version. Although no strict table of recommendations is given, upper range figures of 200 habitable rooms per acre (hrpa) or around 45 dwellings per acre are suggested (p25). Such schemes would not allow for any conventional houses within the development, all accommodation being in flats (see Appendix I). It is not surprising therefore that

Fig 2.11 FLATS AND HOUSES



Source: Ministry of Health~ Housing Manual 1949 p31
HMSO

in the Housing Manual, 1949 the issue of private gardens receives more cursory treatment than it did in the Housing Manual, 1944. Apart from the comment that rural dwellings will benefit from lower densities because they will be provided with;

"...a greater amount of garden space than is usually given to the town dweller..."(p20)

and that mixed development should contain a proportion of houses or maisonettes if only because these adjoin...

"...small gardens suitable for families with children" (p33)
...there is no discussion of the importance of the private garden.

The provision of public open space however receives fuller treatment. Four acres per thousand people is recommended plus one acre of local space per thousand within the residential area, though these figures show no advance on the long standing National Playing Fields Association (NPFA), 1925 standard. Public open space however, is far easier to design into a housing scheme containing a proportion of flats than is private garden space, so the emphasis on public rather than private space is not surprising. Public open space also is more amenable to an overall style of landscaping, and thus can provide a degree of architectural unity and interest, which are frequent themes in the Manual, in a more positive sense than can a fragmented arrangement of private gardens.

The two Housing Manuals of 1944 and 1949 have been discussed in detail because they set a trend in design methods which was to develop consistently over the next decade. The key factor in this design method was the specification of target densities, which tended to increase with each new round of official advice. The concentric zoning of densities was a feature which was totally alien to the garden city movement, which had dominated residential design from the early

nineteen hundreds until 1930, and beyond in the private sector. The effect of density zoning was to deprive many new households of access to a private garden. The 1940's nevertheless was not a period of intense high density house building activity. The recommendations of the Manual necessarily took some time to come to fruition, and the effects of the 1949 Manual especially, are not seen until the 1950s by which time further arguments in favour of the development of high density housing had been developed. Whilst some flat building was undertaken during the 1940s, especially in London, the influence of the garden city movement was still strong. Advocates of decentralisation, notably Frederic Osborn, had for a long time championed the cause of building new towns and as a result fourteen were designated in the 1940s. In their residential density characteristics all show the strong influence of the garden city, the numbers of dwellings without gardens being minimal. So the 1940s represents a period of widely differing housing policies. Central Government advice and the resultant high density mixed developments such as Roehampton on the one hand, and the low density new towns on the other clearly illustrate this point. Equally the housing policies of different cities and Local Authorities varied tremendously. The private garden survived reasonably intact amid these diverse policies. It was not at any time a key issue, yet it was never totally ignored or forgotten, and the impression that a private garden was desirable and important, at least to the average family household, was never really abandoned. The Housing Manual, 1949, however, did suggest that the garden would necessarily be abandoned in many future developments, and this legacy of the 1940s is perhaps that decade's most important contribution to the history of housing in post-war Britain.

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2.5 1950 - 64

The period between 1950 and 1964 is a crucial one in the history of the private garden. During this time, just as in the 1930s, marked differences became apparent between the private and public sectors in the type of housing built. Whereas in the private sector gardens continued to be provided with almost all new housing, in the public sector gardens were less often included in new residential developments, especially from 1956 onwards. In essence the reason for the differing level of garden provision and differences of dwelling type between sectors was the differing density at which development was carried out. In the private sector densities generally remained at the by now traditional private sector level of 12 dpa. In the public sector they tended to become much higher and schemes with a density of 200 persons per acre (ppa) (50 dpa) were not uncommon by the end of the period. Such accommodation was necessarily in flatted form, and by 1964 flats and maisonettes accounted for 55% of all Local Authority tenders. (1) An analysis of why densities varied so much between sectors forms the bulk of this chapter.

The decade began tolerably well for the private garden however. One of the major policy issues upon which the election of 1951 was fought was housing. Completions under the Labour Government had fallen steadily from a peak of 228,000 in 1948 to 195,000 in 1951. (2) The Conservatives won the election on a promise of building 300,000 new houses a year in the future. Such a promise was a shrewd political gamble during an election held at a time of grave housing shortage. Nevertheless it did represent a huge problem for the new Government since in effect it meant an increase in output of 50% over the previous Government's stated target. Harold Macmillan, the Minister in charge

of achieving the increase in output, proved extremely effective however. He was quick to realise that the required number of completions could not be achieved by the private sector alone and that it would be necessary to involve the Local Authorities. Whilst public sector housing had been revived in 1945 after the war, the private sector had been the subject of strict control by the Labour Government during this time. Materials shortages, and above all the requirements of the system of building licences, which allowed only one private house for every four council houses built, had severely restricted the recovery and growth of the private building industry. Thus even though traditional Conservative policy had tended in the past to support private rather than Local Authority enterprise in major house building programmes, the Conservatives' Housing (Subsidies) Act, 1952, increased subsidies to Local Authorities in order to stimulate council house building, in tacit recognition of the fact that private enterprise was not at that time capable of achieving the desired output. The standard subsidy for houses was raised from £16-10s to £26-14s per annum. Macmillan did however attempt to aid the recovery of the private builder by easing the restrictions on building licences, and these were abolished not long afterwards in 1954.

The Conservative housing drive between 1951 and 1954 was very successful. In 1953 the 300,000 target figure was surpassed and in 1954 347,805 completions (all tenures) were achieved. (3) The form which these houses took is of paramount interest here. Massive extra investment, as implied by the increase in subsidies under the 1952 Act, was obviously necessary to achieve such staggering results. Nevertheless cuts in the standards of the new houses, as compared to houses built in the 1940s, also helped to provide the extra resources

required for the increased number of completions. Development generally consisted at first of conventional two storey houses similar in outward appearance to those built immediately after the war. Again expediency is the most probable reason for the lack of basic design change. Low density conventional dwellings were the type which the building industry was most experienced, and above all quick, at producing. Sheffield's Hackenthorpe estate, begun in 1952, is typical of this type of new development. The majority of dwellings are semi-detached, though some terraces are included. The setting of houses around greens and cul-de-sacs reflects the continuing influence of the garden city movement as does the net density of 12 dpa. (See figure 2.12) The economies which were made in this and similar developments involved a reduction in floor space. Sheffield's Civic Record, (4) details the reduction in space standards at Hackenthorpe as 100-150 square feet per dwelling. Such reductions were generally made in circulation and storage space in order to keep room sizes up to the Dudley standard. The result was that unit costs were lower than they would have been if the standards of the 1940s had been continued, and therefore more completions were possible for a given amount of investment. Externally standards differed little from the practice in previous suburban council estates. Figure 2.12 shows that garden provision at front and rear was universal on the Hackenthorpe estate and garden size was in keeping with previous practice, over 1000 square feet for rear plots being typical.

The housing drive continued until 1954 and, throughout, the type of dwelling provided accorded generally to the immediate post-war standard in layout and appearance. Garden provision was, because of the relatively low density employed, almost universal. During this

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period the private building industry was also increasing production so that by 1954 it was contributing almost 100,000 houses a year to the overall total, (5) and the way was cleared for its further expansion by the abolition of building licences in that year. The increasing prominence of private enterprise was welcomed by the Conservatives, who traditionally saw private builders as the main providers of housing, and the result was a cut in subsidy for general needs council housing. The Housing (Review of Contributions) Order, 1954, reduced subsidies from £26-14s to £22-1s per annum (£35-14s to £31-1s in agricultural areas) as a disincentive to Local Authorities to go on building general needs housing. (6)

A hint of future policy in housing was also included in the White Paper, Houses - the Next Step, 1953. This document emphasised the need for concentration on repairs and maintenance of old property, and consideration of the problem of slum housing, by either clearance and renewal or renovation. It also made it clear that private enterprise building for owner occupation was to be the main source of housing in future.

"Her Majesty's Government believe that the people of this country prefer in housing as in other matters, to help themselves as much as they can rather than to rely wholly or mainly upon the efforts of Government, national or local. Indeed four million families in Great Britain already own their own homes. It is for this reason that during the present Parliament the Government have given - to take one example - progressively greater freedom to private enterprise to play a steadily increasing part in building new houses.....One object of future housing policy will be to continue to promote, by all possible means, the building of new houses for owner-occupation." (7)

In tandem with an increased dependence on private enterprise, slum clearance was to be revived since;

"...we cannot let the centres of our cities decay while they are expanding continually outside their present boundaries. The core is too valuable, actually and potentially to be

allowed to rot away; nor can we afford to take for housing - and out of food production - more than the absolute minimum of good agricultural land." (8)

Flat building was briefly mentioned as the solution to this latter problem.

Following the general election of 1955, when the Conservatives were again returned, and the target of 300,000 houses per annum had been achieved for two years running (1953 and 1954) a drastic shift in policy to accommodate the recommendations of the 1953 White Paper was effected. The new Minister, Duncan Sandys, first cut the general needs subsidy, by the Housing Subsidies Act, 1956, from £22-1s to £10-0s per year and later that year abolished the general needs subsidy altogether by the Housing Subsidies Order, 1956. Slum clearance subsidies were retained. Following a promising start, as far as provision of council housing, and of housing with gardens, were concerned, the Government had by 1965 reverted to the policies of the 1930s, mainly reliance on private enterprise to build for sale, and on Local Authorities for slum clearance and replacement. Furthermore, the advice and subsidies offered to Local Authorities by Central Government increasingly pointed at the desirability of replacing slum housing with flats. The implications for garden provision of this shift in housing policy were therefore serious. There was an imminent danger of creating a dual standard, just as had happened in the 1930s, with a high level of garden provision in the private sector*, but a much lower level of provision in the public

* It should be noted however that during the 1950s, especially in the latter part of the decade, there was an increase in the number of private flats on the market. See Sutcliffe A - 'A Century of Flats in Birmingham', in Multi-Storey Living, 1974, Croom Helm p 203. Even so the vast majority of owner occupiers still lived in single-family accommodation with private gardens.

sector because of concentration on flats. Following the experience of the 1930s, when a policy of encouragement to private enterprise, allied to slum housing replacement by Local Authorities, was pursued, it is not surprising that the first post-war Conservative Government should seek to continue this policy. However the policy of increased residential densities, and the increased use of flatted development in the public sector, in marked contrast to trends in the private sector, does require further explanation.

The increase in public sector residential densities and the reliance on flats as a major dwelling type from 1955 onwards are best explained as the result of a combination of diverse factors, namely,

- i) a high degree of interest amongst professional architects and planners in the philosophy of urbanisation.
- ii) The political desire to
 - a) save agricultural land from urban expansion;
 - b) streamline and industrialise the building industry by developing 'systems technology'.

The coincidence of these ideas produced a situation which was extremely conducive to the formulation of a policy of high density development, and the parallel demise of the private garden. Each factor in this combination is worth examining in some detail, before going on to look at some schemes which were actually built, and assessing the impact of this period on garden provision, both then and now.

i) Professional Interests - Urbanism

Both the Housing Manual, 1944, and the Housing Manual, 1949, have already been shown to include a high degree of professional

input which was not, in all cases, totally in accord with the wishes of the average householder. The recommendations of both these Manuals for higher densities and more flat building are particular examples. Official advice from Central to Local Government in the 1950s reinforced this pattern. The Density of Residential Areas, 1952, whilst devoting a good deal of space to a discussion of technical aspects of low density housing design, also suggested that schemes of up to 240 persons per acre (60 dpa) were both possible and desirable. Equally the White Paper, Houses - The Next Step, 1953, emphasised the future importance of flats and higher densities.

The growing numbers of architects employed in Central and Local Government was no doubt a contributory factor in the shift in emphasis on density. Before the war the influence of the garden city movement coupled with the lack of trained architects in Local Government had meant that Local Authorities often accepted Central Government advice as set out for example in the Tudor Walters Report, and built their housing according to this advice, with only minor adjustments for site and layout requirements. The resulting development was often criticised as monotonous mainly as a result of its low density. (9) (See 2.3) During and after the war however, the increased interest and activity of Central Government in housing and town planning in general (witness several Royal Commissions on these and related topics, namely Barlow, Uthwatt, Scott, Reith and the Town Planning Act, 1947) and the increasing number of

architects involved* in designing Local Authority housing, inevitably produced experimentation and questioning of previously accepted ideas. Many of the post-war generation of architects were imbued with the ideas of the Modern Movement, as a result of the prominence of this creed amongst the leading architects and academics of the 1930s, and were especially influenced by the ideas of Le Corbusier. Architectural schools of the early 1950s increasingly supported the Modern Movement. Osborn complained bitterly of their influence in his letters:

"It appals me to think that our young architects are being taught by such men; no wonder they produce such shocking schemes.....Now that academic authority is passing into the hands of the Corbusierites apparent support is given to the opportunist leanings of the LCC and other housing authorities, and the Ministry, and more and more block flats are being built, and density is gradually being increased in normal housing estates and in the new towns." (10)

In a less partisan mood Lords Esher and Llewellyn-Davies have observed;

"...in Britain the years 1940-60 saw a remarkable deployment of architects into new or greatly expanded fields.....Much of this new deployment took its impetus from the social idealism of the period....." (11)

It is all the more surprising that architects ostensibly inspired by social idealism should proceed to produce housing

* Many local authorities during the 1950s, employed architects for the first time or established separate architects' departments. Birmingham for example appointed its first city architect in 1951 and Sheffield did likewise in 1953. The LCC also expanded its architectural staff in 1950. (See Architects Journal, Sept 21 1950 p 251 where the formation of a development group in the new Housing Division of the Architects Department of the LCC is reported). Ernest Kay in a letter to the Architects Journal, June 22 1953, p 121, went so far as to suggest that the post of architect be made a "statutory appointment to be filled by every local authority intending to design and erect its own buildings."

which after a short time was to prove so unpopular with its residents.

The absence of private gardens from most flatted low or high rise developments is just one aspect of this apparent contradiction. The explanation lies in Le Corbusier's ideas concerning the changing nature of society. In the first few pages of Vers Une Architecture, Le Corbusier argued that the growth of industry and technology were irrevocably changing society to such an extent that its needs, especially in housing, would soon be completely different from those satisfied by previous housing designs. Thus:

"Industry, overwhelming us like a flood which rolls on towards its destined ends, has furnished us with new tools adapted to this new epoch, animated by the new spirit.....The problem of the house is a problem of the epoch. The equilibrium of society today depends upon it. Architecture has for its first duty, in this period of renewal, that of bringing about a revision of values, a revision of the constituent elements of the house.....It is a question of building which is at the root of the social unrest of today: architecture or revolution." (12)

Social change, either created by or creating, new styles of living and drastic revisions in ideas on residential design, is a recurrent theme in Le Corbusier's writing, and was consequently seen by many architects as a conceptual basis for many high density schemes in the 1950s. As an illustration of contemporary architectural opinion the following quotation from the Architects Journal is particularly apposite. The author criticises a recent Government circular for its lack of emphasis on flats and maisonettes and cites;

"...disturbing news.....of pressure being put on private architects to substitute houses for flats in the new towns."

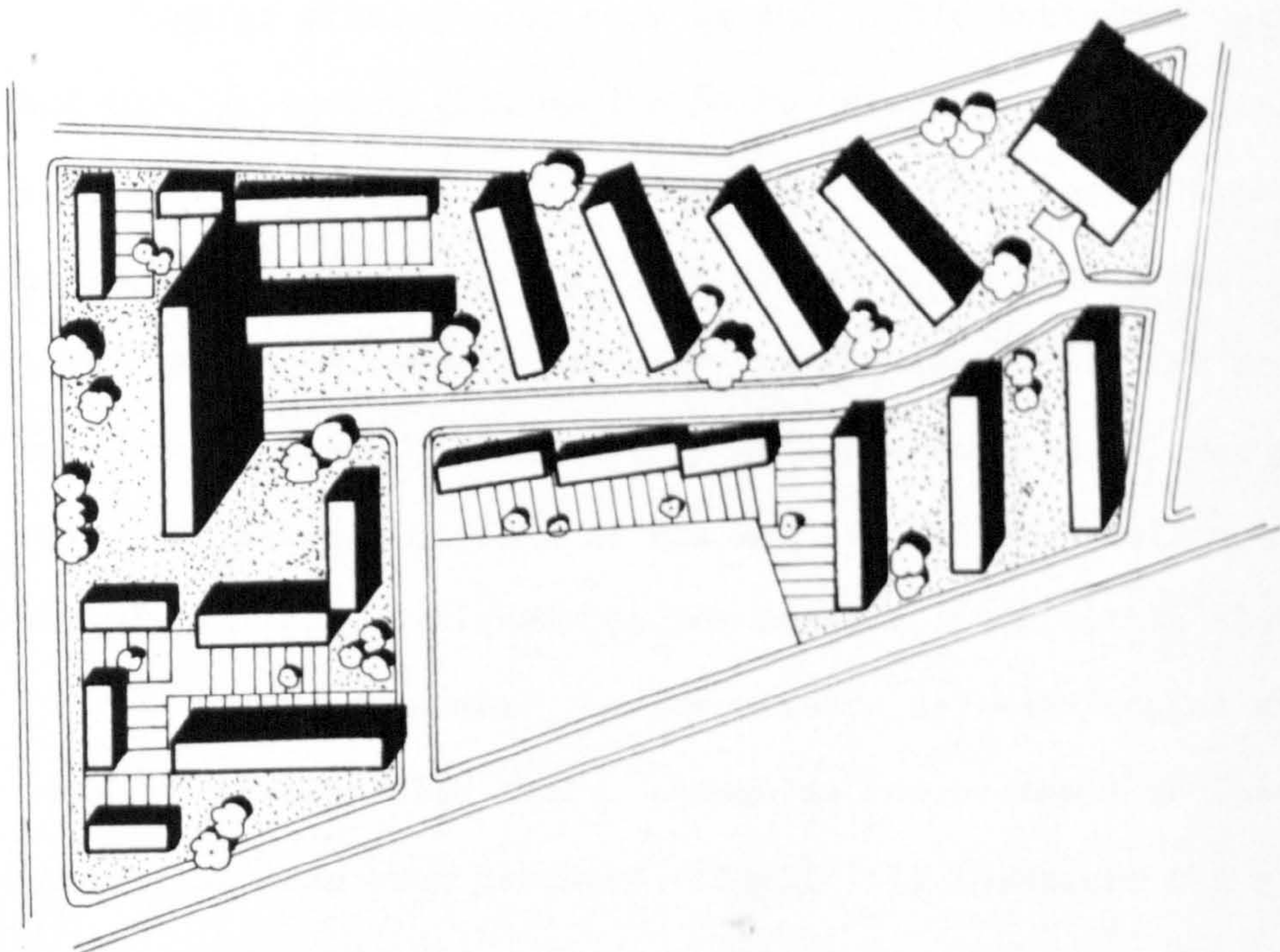
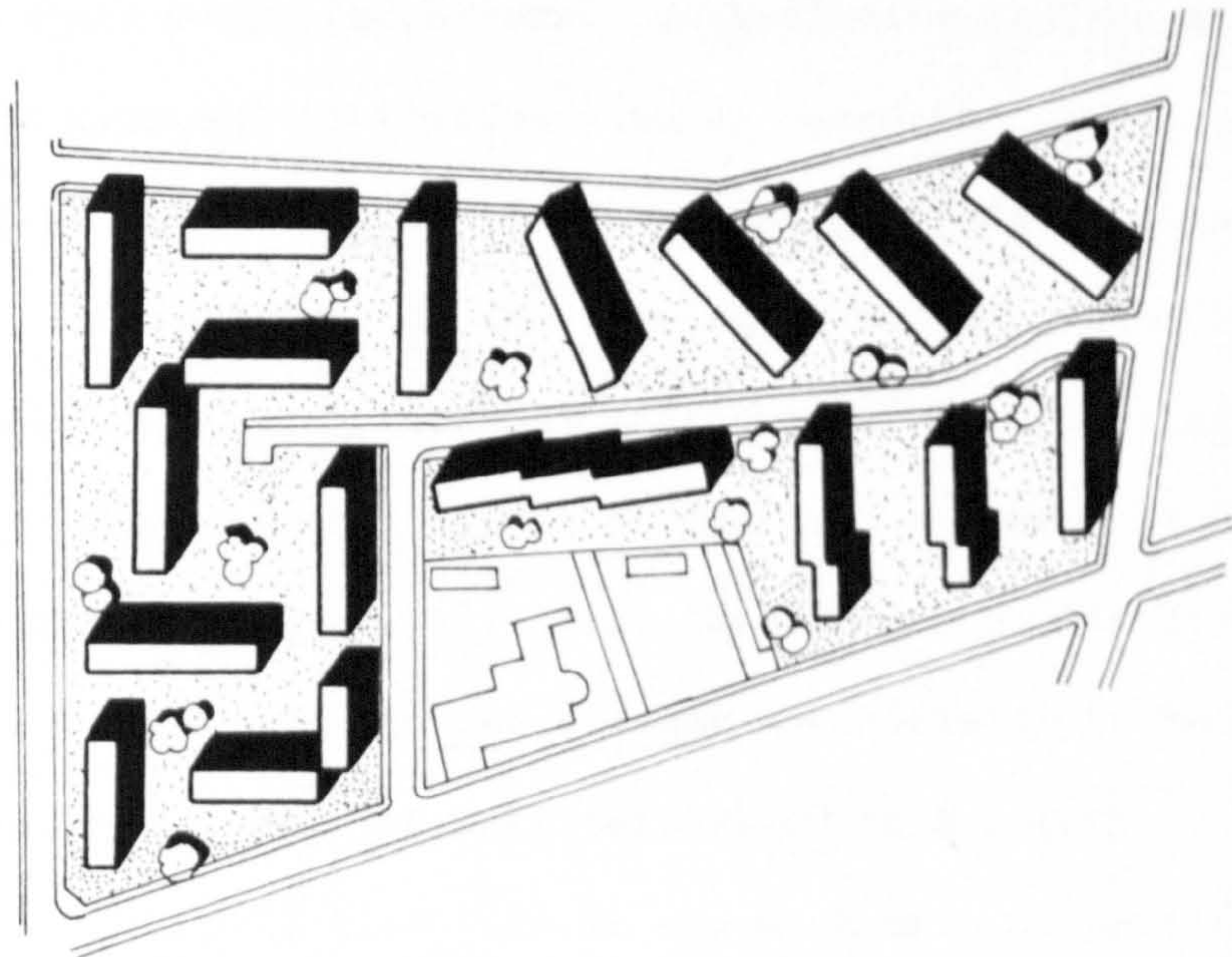
He continues:

"Sample surveys made for The British Household, a Government social survey in April, 1947, show that 56% of the family units surveyed had no children under 15 years of age.....Even though a proportion of that 56% will be represented by newly married couples who might be expected to have children later, there remains surely a substantial proportion of the population for whom a flat or maisonette might well be the most appropriate form of dwelling." (13)

The Architect's Department of the London County Council (LCC) was a key agent in the development of architectural trends during this period since it acted as a pace-setter for the rest of the country. In both the pre-eminence of its staff in the field of modern architecture - Robert Mathew and Leslie Martin being perhaps the most famous names - and in the early development of revolutionary schemes - Roehampton is the prime example - the LCC set an example for other housing Authorities. It was an example which was taken up by many cities with alacrity.* Central Government advice too, especially Flats and Houses - Design and Economy, 1958, relied heavily on LCC experience and presented many of its completed developments as models for the rest of the country. The overwhelming preponderance of flats, both high and low rise, and maisonettes, and the marked lack of private garden provision in such schemes, were a powerful influence which tended to foster the impression that the garden was an issue of only minor importance. (See figure 2.13) Whilst the division of the space between blocks into private gardens

* Though not all. Manchester for example opted not to build flat blocks higher than 3 stories. See Housing Committee, A Short History of Manchester Housing, 1947 pp 55-6, cited in Cooney E W, 'High Flats in Local Authority Housing', in Sutcliffe A (Ed) Multi-Storey Living, 1974, Croom Helm, p 161.

Fig 2.13 FLATS AND HOUSES



Source: MoHLG~ Flats and Houses
1958; Design and Economy.
HMSO p14, p19

received little consideration, the dimensions and design of that space was the subject of much discussion. The stipulation of desired sunlight/daylight angles ensured that a certain amount of space separated blocks. Corbusierite designs also suggested that communal facilities such as schools, playspace, creches etc should be located in the space between large blocks, but above all consideration of the spacing of buildings was linked to the question of architectural aesthetics. The steady growth in importance of this aspect of design has been noted in relation to the Housing Manual, 1949, (See 2.4). In his forward to Flats and Houses - Design and Economy the Minister of Housing and Local Government, Henry Brooke reiterated this point:

"I should also like to see much more attention given to the treatment of space around buildings. Of course no book can of itself show how to achieve the complete combination of attractive buildings, a happy variety of form and skyline, a satisfying massing of blocks, and a sense of space pleasingly planned. But perhaps this one will help." (14)

Popular writing too, such as the highly acclaimed Outrage (15) and Counter-Attack (16) by Ian Nairn, stressed the importance of careful development of the visual environment, laying emphasis on the urban scene and the qualities of urban rather than suburban life. But such concern was only for the appearance and not the function of space. Thus so long as large amounts of open space were left between blocks, it was anticipated that this would satisfy all the usual demands for outdoor space within the residential environment. As for private space, balconies were usually provided with flats, though as replacements for gardens their size made them derisory. Implicitly therefore the private garden was considered redundant. (Also see page 107 ff) The

dictates of modernism and aesthetics also demanded that natural landscape provide the setting for new developments - again, the rich parkland of Roehampton provides an excellent example - and in such a setting the private garden had no place. Cleeve Barr, in Public Authority Housing, summed up the prevailing professional attitude towards gardens as follows,

The introduction of private gardens into higher-density development is itself a considerable problem. They conflict with the desire to provide public open space and to open up landscape views. The backyard kind of garden, with clothes posts and rabbit hutches is untidy by way of its very nature." (17)

The influence of professional architects and planners on housing policy and built form in the 1950s and 1960s then, made an important contribution to the increased densities of this period. This influence was pervasive and soon spread within Local Authorities from officers to elected representatives. As a consequence several cities looked not just to London but to foreign examples for inspiration and advice. Liverpool sent a deputation to the USA in 1954 (18) and Sheffield twice sent parties of councillors and officers to continental cities in 1949 and again in 1955. (19) All returned fired with enthusiasm for the schemes they had studied, as the glowing descriptions of continental flats in Sheffield's report of the 1955 visit testify. The result was increased political support for higher densities and flat building. In the particular case of Sheffield, professional opinion strongly supported even if it did not directly influence political judgement. Yet had professional architects and planners been the only group pressing for high density flats, the growth of this type of development would probably not have proved so rapid a phenomenon. In fact, strong political support

for higher urban densities was also in evidence and based on a fundamentally different argument, namely the need to conserve agricultural land.

ii) Land Saving

The expressed need to preserve agricultural land from urban encroachment was a powerful new argument which emerged in the post-war period and furthered the cause of high-density housing. Political support for this argument is apparent from several government publications. The Housing Manual, 1949, mentions;

"...the shortage of building land in many districts and the necessity to restrict the outward sprawl of towns." (p 16)

as a reason for infill development. In Houses - The Next Step, 1953, the argument rests on a more positive basis;

"...nor can we afford to take for housing - and out of food production - more than the absolute minimum of good agricultural land." (p 11)

By 1962 the planning bulletin, Residential Areas, Higher Densities, questioned;

"...the part which higher residential densities can play in meeting the total demand for land whilst maintaining other vital planning objectives such as the preservation of the countryside and the protection of good agricultural land." (20)

The implications for urban residential density of operating a policy of conservation of agricultural land are clear, as the title of the reference cited above suggests. By why was this policy so strongly advocated in post-war planning?

Undoubtedly professional enthusiasm for high density development and revulsion against the suburban sprawl of the 1930s had an influence on political opinion. The repetition

of such loose knit suburban developments was generally considered to be a waste of land. (21) But this explanation is not enough to account for the single-mindedness with which land saving policies were pursued in the 1950s. Equally although the experience of the war, when thousands of acres of land were pressed into agricultural use in order to combat food shortages, had a marked effect on post-war policies on agriculture and food production, it did not fully account for the tough line later taken on land saving for agriculture. The crux of the matter was that a powerful agricultural lobby grew up during the 1950s and was able to exert a good deal of pressure on a Conservative Government which depended to a great extent on the rural vote to keep it in power. Osborn, in his struggle to promote a policy of dispersal against the overwhelming trend towards higher densities, was keenly aware of the power of this lobby. In 1951 he wrote;

"...the TCPA seems to me to be losing ground to the agricultural lobby and to the town-cramming theorists with whom the lobby is in alliance..." (22)

Again in 1957 he complained that the campaign for dispersal planning was;

"...held back by agricultural opposition and the treason of the architects.....Macmillan is more under agricultural influence, and after all, he's the big boss." (23)

Why then did the 'agriculturalists' choose to exercise such power?

The root cause of the rise of the agricultural lobby was the 1947 planning legislation which, inter alia, introduced a 100% development tax on land which meant that all land would in future be sold at existing use value. The effect of this

legislation was that building land was withheld from the market, because of the lack of incentive to sell, and the result was a land shortage which was felt as early as 1949, when the Housing Manual, 1949 referred to;

"...the shortage of building land in many districts.."(p 16)
Consequent pressure on the Government from agriculturalists and landowners was not so much in order to protect land for agriculture as to avoid it being taken for development at zero profits to its owners. In 1953 part of the planning legislation was repealed by the Town and Country Planning Act which re-established market prices on land sold to private developers but not on land compulsorily purchased by Local Authorities. Thus, while landowners now become keener to sell building land for private development, they continued to show reluctance in releasing land for Local Authority housing development on greenfield sites. (24)
The result was a powerful lobby on Central Government to restrict Local Authority building on suburban greenfield sites and this lobby was a prime factor in the concentration of Local Authority house building on inner city sites during the rest of the 1950s.

A further important factor in the pressure to build on inner city sites was a second 'artificial' land shortage caused by the imposition of green belts around most cities and towns in the mid to late 1950s. These can be seen as a victory for the agriculturalist lobby but also as a partial fulfillment of the new towns policy. Traditional garden city plans had always stressed the importance of the green belt and Osborn, the most vociferous representative of garden city policies at this time, welcomed their imposition by Duncan Sandys, whom he described

as a "complete convert". (25) A greenbelt policy without the associated designation of more New Towns, however, was very likely to lead to higher residential densities in the older urban centres. This policy necessarily led to friction with those Authorities, such as Manchester, who refused to countenance high urban densities. The unsuccessful attempts to secure the designation of new towns and negotiate boundary extensions at Lymm and Moberley in the 1950s bear witness to the pressure caused by green belts and the desire for urban containment.*

The use of a green belt policy was very much in accord with professional thinking in terms of the desire to differentiate between town and country and develop each along distinctive lines. Again, Ian Nairn's diatribe against 'subtopia', and his contrasting discussions and illustrations of the proper features of country and town spring to mind. (26) There were, however, further political motives behind the designation of green belts. Concern at the possible loss of electorate from central city wards, and the effects on voting patterns of large shifts of population from the inner city to suburban areas, were a powerful influence in support of the restriction of city expansion by the use of green belts, and of maintaining inner city populations by building high density housing schemes. The case of Salford, which in contrast to its neighbour Manchester, opted to build a great deal of its new municipal housing in the form of flats, is a case in point. A possible loss of population and rateable

* The arguments over these sites extended over a decade, culminating in the Lymm Inquiry, 1958. For a discussion of the issues see Hall P - Containment of Urban England, Vol 2, 1973, Allen & Unwin pp 588-592

value so great as to threaten Salford's continued existence as an independent authority, were suburban expansion to be allowed, has been cited as a primary cause of high-density flat building there. (27)

Further support for high-density redevelopment was provided by academics, notably sociologists examining working class communities. Young and Willmott's study of Family and Kinship in East London (1953-55) (28) is a classic example. In a study of family ties in Bethnal Green and a suburban estate in Essex they discovered that the widespread network of extended families and the close community ties of the older district tended not to be re-established on new suburban estates. Thus they argued against the wholesale clearance of old inner city areas and the removal of their populations to suburban estates. Selective redevelopment within the established district was seen as the best course, and to be fair to Young and Willmott, they never advocated the wholesale removal and replacement of slum housing by multi-storey flats. Nevertheless the implications of their studies could easily be used as further justification for a policy of land saving and the preservation, if not the enhancement, of high inner city densities.

iii) Industrialisation of the Building Industry

A further factor which added support to the already powerful lobby in favour of high urban densities in the 1950s was the trend towards industrialisation of the building industry. Industrialisation of the building process, by the introduction of factory production techniques, standardisation of materials and more pre-fabrication of components, had already been attempted in a limited way in the 1930s. Quarry Hill flats in

Leeds for example were built using the Mopin system, and Emily St flats in Birmingham used Dyke's 'clothed concrete' system of prefabricated panels in 1939. (29)

After World War II the necessity to provide large numbers of dwelling units quickly provoked further interest in the use of prefabricated standard components in house construction. The result was a rash of 'prefabs', usually bungalows, in many cities. Sheffield for example was allocated 2,066 of these, one of which was erected in only 46 minutes! (30) Such dwellings were only intended to be temporary features however and were considered to have a useful life of ten years. (Despite this 40,000 were still in existence at the end of the 1960s. (31).

The 1950s witnessed a further effort on the part of Central and Local Government to develop the expertise of the building industry in industrialised methods. The aims of this programme were twofold, firstly to speed up production, and secondly to reduce costs. Industrialisation and the use of systems methods did not necessarily imply high-density, high-rise development. Such techniques could equally be applied to more conventionally styled dwellings, as indeed they had been in the case of the 1940s prefabs. Nevertheless the concentration on flatted development, for the reasons already outlined, in the latter part of the 1950s and 1960s tended to influence the building industries' policies and produced a plethora of systems technology mainly applicable to the construction of high blocks of flats. Undoubtedly the provisions of the Housing Subsidies Act, 1956, which severely reduced the subsidy payable on conventional houses whilst increasing that available for multi-

storey flatted development, thus encouraging Local Authorities to build high, was a primary consideration in the development of such systems.

Table 2.2: Provisions of Housing Subsidies Act, 1956

(Subsidies per dwelling for 60 years)	<u>General Needs</u>	<u>Slum Clearance</u>
Houses or flats up to three storeys	£10	£22 1s
Flats in four storey blocks	£20	£32
Flats in five storey blocks	£26	£38
Flats in six storey blocks	£38	£50

plus £1 15s -0d per dwelling for each storey over six stories

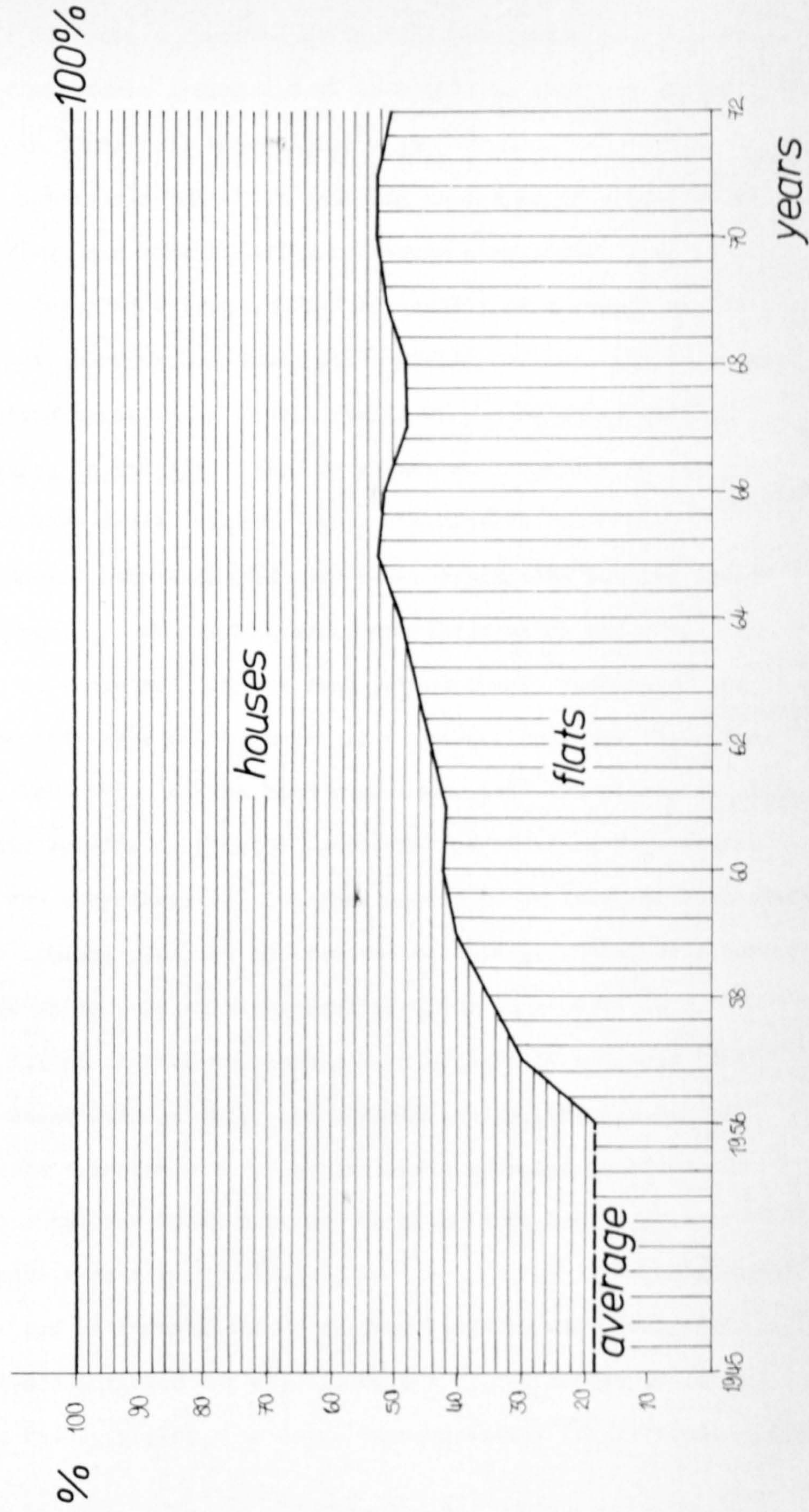
Source: Housing Subsidies Act, 1956, HMSO

As table 2.2 shows, more subsidy was payable on dwellings, especially flats, built to replace cleared slum housing than on general needs housing, and in fact, the general needs subsidy was totally removed later that year by the provisions of the Housing Subsidies Order, 1956. By these methods Central Government attempted to manoeuvre Local Authorities into a situation when they could afford only to concentrate on slum clearance and replacement, with flats forming the bulk of new housing. Such development would also tend to be on inner city rather than greenfield sites, which were left free for private enterprise. In such a situation a market was thereby created for systems designed and built blocks of flats.

The results of the 1956 legislation are illustrated in figure 2.14. Completions of Local Authority flats increased from 1956 when they represented 20% of all local Authority dwellings completed, to a peak of over 50% in 1965. The proportion of high blocks (over five stories) shows an equally dramatic

Fig 2.14 PERCENTAGE OF FLATS AND HOUSES IN TOTAL PUBLIC SECTOR OUTPUT 1945-72

Source: Crawford D~ A Decade of British Housing 1963-73 p19



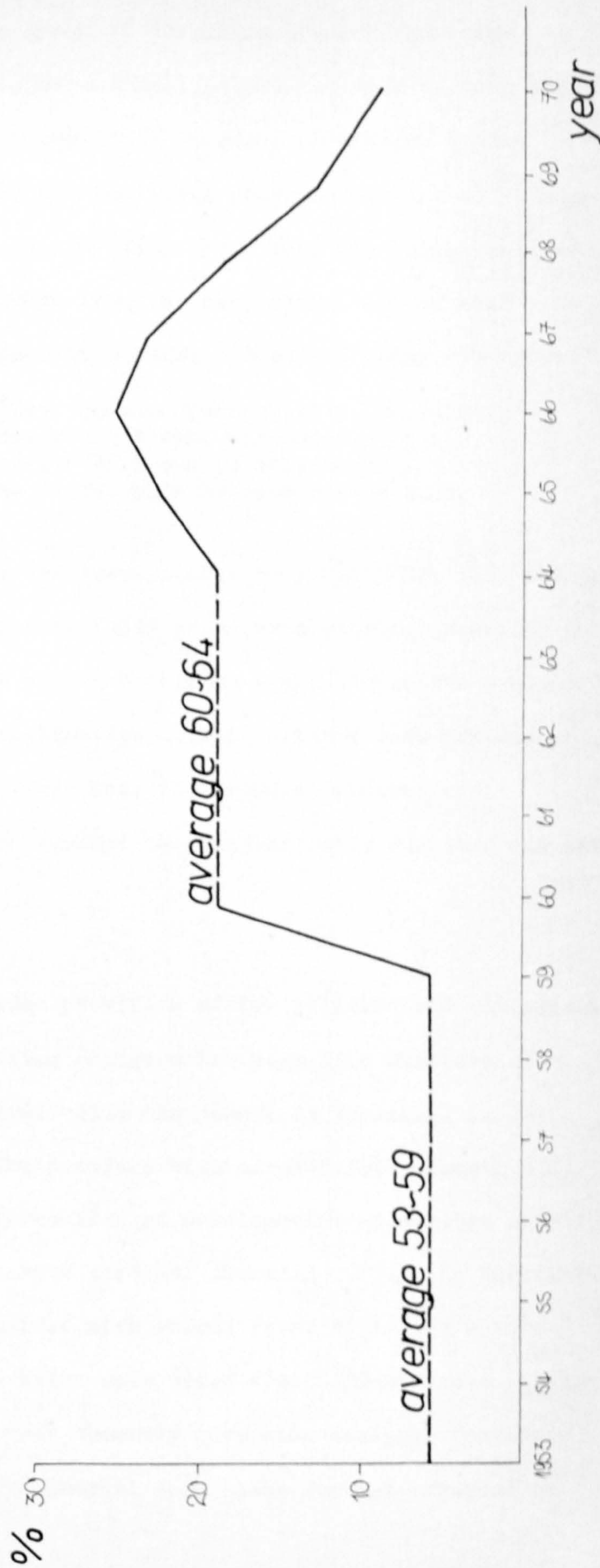
increase, though through a slightly different time period. On the basis of tenders approved by Central Government the proportion of high rise blocks averaged 6.9% from 1953 to 1959 and peaked at 25.7% in 1966. (32) (See figure 2.15)

The hypothesis that flat building tended to be almost self-perpetuating, and thus steadily increased over time, as a result of Government support, and especially as a result of the reorganisation which had taken place within the building industry, is supported by Dunleavy in his thesis on The Politics of High Rise Housing in Britain. (33) He points out that the increased use of package deals, whereby large contractors such as Taylor-Woodrow undertook not only the construction but the design of buildings, and the necessity to use large sites and plan phasing and investment over a long period ahead, encouraged the growth of this type of housing. As a result, Dunleavy shows that by 1967, the peak of the high-rise boom, over two-thirds of all new public housing in Greater London was provided in high flats. Equally the comprehensive clearance needed to produce suitable sites for such schemes demanded the removal of a large number of older dwellings which were still habitable. Thus in Beckton Ward, Newham, 52% of cleared houses had been officially adjudged 'fit'. In many cases such as this, the cleared houses, whether fit or unfit, were terraces with no garden space attached, but without exception, the new homes provided in high flats had no private areas apart from a tiny balcony.

The use of industrialised systems building was widespread. Birmingham contracted out a large number of new blocks to large building firms, giving them total responsibility for internal

Fig 2.15 FLATS- FIVE STOREYS AND ABOVE, AS A PERCENTAGE OF ALL PUBLIC SECTOR TENDERS APPROVED

Source: Cooney E- Multi Storey Living p152



design, whilst the Architects Department concentrated on layout design. (34) A group of Yorkshire Local Authorities including Sheffield, Leeds and Hull joined together to form the Yorkshire Development Group (YDG) in order to promote system building and make their housebuilding programmes utilise it more efficiently. (35) In all, by 1965 there were 224 industrialised building systems available from 163 developers; 138 of them specifically recommended for housing. Crawford points out that:

"Many industrialised systems, particularly the factory-based pre-cast concrete systems, were mainly geared to the crude quantitative approach to mass housing represented by the early 1960s advance of the tower blocks." (36)

The increase in flats, and tower blocks in particular, from the mid-1950s to mid-1960s inevitably produced a parallel decrease in the level of private garden provision available in the public sector. While industrialisation of the building industry was not a primary cause of this decline, it served to prolong and strengthen the campaign against the single-family dwelling and garden.

iv) Garden Provision

The effect on garden provision of the policies and influences on Local Authority housing design which have been outlined above was drastic. More specifically the number of dwellings in the public sector which were provided with gardens fell dramatically. In almost all multi-storey flat developments no attempt at all was made to provide private gardens. Broomhall flats in Sheffield, where gardens were provided with ground floor flats, are a rare exception. Balconies, which were often tiny, (30-40 square feet) were, on the basis of many commonly occurring designs, considered adequate alternatives. Communal open space too was regarded as

a substitute for private garden space and often generous grassed and landscaped areas were provided between blocks.

Central Government advice began in 1952 with an explicit admission of the value of the private garden. By the end of the decade however it was made quite clear that, even if the garden remained a valuable asset, most households in Local Authority housing would not be given access to one. The Density of Residential Areas, 1952, recognised that garden size was a prime determinant of density and commented that:

"It is difficult to give general advice about the choice of garden size but it might perhaps be said that, if one of the main purposes of building dwellings in the form of houses is that there may be private gardens, there is much to be said for making the gardens at least big enough to provide playing or sitting-out space and some space for flowers and fruit trees. The minimum back garden which will meet these requirements is about 150-200 square yards (1350-1800 square feet). (p 10)

Such gardens would have been generous, especially if they had been universal. The advice tendered in 1952 had little effect however. Few estates if any included the quality of provision set out in The Density of Residential Areas and, anyway, within a short time of this advice being given, Government policy had largely swung against single-family housing. Indeed, the Density of Residential Areas, 1952, did not specifically recommend universal garden provision. As a handbook giving technical advice on the achievement of higher urban densities, it discusses the use of flats and maisonettes at some length, and thus there is an implicit assumption that the level of garden provision must fall as densities increase, even if the size of individual gardens does not.

The advice contained in the next major Central Government pamphlet, Flats and Houses - Design and Economy, 1958, made explicit what the previous document had only implied. The need for high densities in the range of 100-160 rooms per acre was considered incontrovertible, and thus it was made clear that it would not be possible to provide gardens with all dwellings (See table 2.3). On the one hand it was recognised that gardens were valuable and desirable features of housing. But on the other the Manual recommended that in the interests of economy the number of high blocks should be kept to an absolute minimum. The net effect of this advice, given the overall aim of increasing density, was a concentration on low rise flats and maisonettes. This formula immediately cut down the total number of houses with gardens which could be included in any new scheme to well below the desirable level of 80-90%. Thus for example at an overall net density of 140 habitable rooms per acre (hra) up to 30% of dwellings could be provided as houses, but this would entail counterbalancing the low density area of houses with high density enclaves, which would necessarily take the form of high flats, which are very expensive to build. A more reasonable level of cost would therefore only produce about 10% of the dwellings in the form of houses, the rest being low rise flats. (37) The combination of pressure for high density and cost constraints, therefore allied to cut down the level of garden provision. The value of the private garden was however recognised to a certain extent. As table 2.3 shows the question of the proportion of dwellings which could be provided with gardens at various densities was a matter of concern.

Table 2.3: Proportion of Dwellings which could have Private Gardens

Net Density and example number*	A Total No of dwellings	B Houses with private gardens	C Ground floor maisonettes which could have private gardens	D B+C	E Percentage of dwellings which could have private gardens
100 hra 1	327	63	112	175	53.5
2	325	105	27	132	40.6
140 hra 1	456	47	109	156	34.2
2	457	68	99	167	36.6
3	457	69	58	127	27.8
160 hra 1	520	78	76	154	29.6
2	522	36	86	122	23.4

* Examples are schemes referred to in Flats and Houses

Source: MoHLC - Flats and Houses - Design and Economy, 1958, HMSO p5

Table 2.3 makes it clear that by including private gardens with ground floor maisonettes and flats the total number of dwellings with gardens could be boosted, but still not to a satisfactory level as defined in 1.4. Moreover, in practice, as the examination of the Gleadless estate will show later, garden provision with ground floor flats and maisonettes was rarely adopted, perhaps because of the official advice which immediately followed Table 2.3 in the original Report and which states that:

"Experience has shown that because gardens provided for upper maisonettes are not so close to the dwellings they are used less than those belonging to dwellings at ground level. For this reason some authorities now allot less space to them or provide a communal garden." (p5)

However observation shows that few Authorities provided gardens even with ground level flats and maisonettes, and hardly any considered gardens for upper maisonettes. The continued emphasis on visual amenity and the possibilities for the landscaping of communal areas served only to strengthen reservations about the practical difficulties of providing private gardens in such mixed high density schemes.

Finally, the planning bulletin, Residential Areas Higher Densities, 1962, continued to encourage Local Authorities to develop their housing along the lines illustrated in Flats and Houses - Design and Economy, 1958. Again the value of a private garden, at any rate to families with children, was recognised:

"No one contends that family living at densities over 100 persons per acre is ideal, but high density development meets the needs of the large number of families without small children.....even at 140 persons per acre it is possible by skilful planning to provide a proportion of two and three storey housing for families with children." (38)

This comment suggests that Central Government placed only a limited value on the private garden. It was assumed that only families with small children required gardens, and that the remaining households could get along quite well without.

The brief reference to gardens contained in the Parker Morris Report, 1961, reflected this view of the garden, and was probably even more influential on subsequent public sector housing designs. The garden was seen by the Committee as declining in importance due to the increase in leisure activities outside the home (39). Thus the large scale provision of private gardens was considered superfluous. Yet such advice directly countered the views of Osborn, who claimed that 90% of all households wanted a garden, and Self, who set the figure at between 80 and 90% (see 1.2). The Parker Morris Report was a milestone in the history of housing policy and standards in Britain and is generally ranked alongside Tudor Walters and Dudley as the third important review of housing standards since 1918. It is significant therefore that the garden, which featured strongly in the first of these three major reviews, is relegated to a position of very minor importance in the third. The lobby in favour of near universal garden provision was thus ignored because of the pressure to raise densities, build high, save land and create a new age of modern architecture.

v) The Example of Sheffield 1950-64

The trend towards higher densities, and reduced garden provision, which has been discussed above, is well illustrated by events in Sheffield during this period. During the early

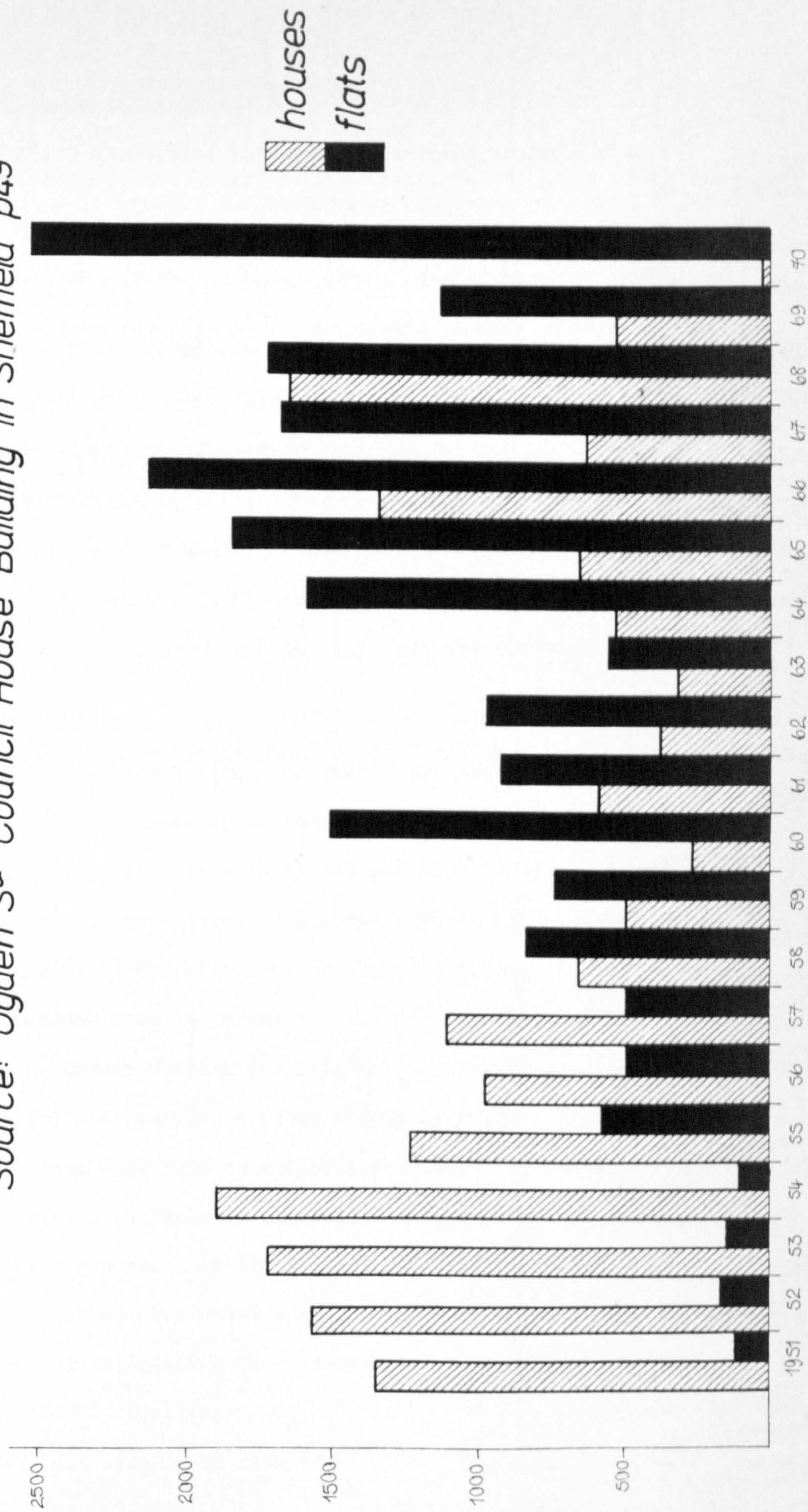
1950s, the period of the Macmillan housing drive, we have already seen how Sheffield responded by building low-density units at Hackenthorpe (see figure 2.12). But the two primary causes of high-density development, namely architectural fashion and land shortage, were already at work in the city at this time. The decision, in principle, to develop the inner city Park Hill site with high-density replacement dwellings had already been taken. The shortage of land for suburban expansion was now being felt, as the application in 1950 to extend the city boundaries to the north and south, clearly shows. The application was refused, and this refusal, combined with the formation in 1953 of a City Architects Department headed by J L Womersley, was instrumental in the formulation of the design for Park Hill. The visit by the City Architect and a group of councillors in 1955 to study European flatted developments served to assure local politicians of the benefits of flat living.

In keeping with much of the rest of the country, therefore, Sheffield swung increasingly towards flatted development after 1955. Figure 2.16 shows the relative percentages of flats and houses built during the period 1951-70. Architectural enthusiasm for high density and the qualities of urbanism was a key factor in this change of policy. Visual amenity, for example, was held to be a prime concern in all new housing development. Thus Hyde Park flats were planned with a marked vertical emphasis to;

"...Contrast with the horizontality of Part I (Park Hill) to complete the visual composition of the hillside." (40)

Fig 2.16 PROPORTIONS OF HOUSES AND FLATS IN SHEFFIELD~
COUNCIL BUILDING 1951-1970

Source: Ogden S- Council House Building in Sheffield p49



Womersley later commented:

"There was a very strong architectural attraction in pushing up the height of Hyde Park, on its lofty site, so as to provide an interesting townscape over the city centre." (41)

Several tower blocks were included at Netherthorpe in order to

"restore the valley.....and create an open space within the development". (42)

and to fit in with the layout and building form of adjacent University buildings. Perhaps the most startling evidence of the power of the urbanist lobby is the official description of the development at Woodside Lane, which consists of four and five storey maisonette blocks, two medium high blocks of flats and maisonettes, and four high (thirteen and fifteen) storey tower blocks, as:

"Sheffield's New Garden Village - a modern skyscraper village on a hilltop 200 feet above Sheffield." (43)

The quality of landscaping and open space provision (ie the ratio of site built upon to open space) was high in all of these schemes, but there was no attempt to provide private gardens. The description of Woodside Lane as a garden village could not have been further from the truth.

The urbanism which inspired many of the designs for flats in Sheffield was tempered to some extent by sympathy for the traditional English single-family dwelling. Thus the street deck system, as employed at Park Hill, Hyde Park and Kelvin, was an attempt to maintain the tradition of the individual house with its front door opening onto the street. Yet laudable as this attempt at re-creating the atmosphere and conditions of the single-family dwelling might have been, the lack of gardens was clearly not seen as an impediment to the enjoyment of life in

such flats. Thus the Housing Development Committee confidently stated:

"...the underlying notion of the design of these high dwellings has been to provide accommodation and amenities which are comparable with houses on the ground, and which form satisfactory homes for a wide range of families, for small children and for aged persons." (44)

Yet even Central Government advice had suggested that flats were not intended for all categories of tenants. Successive Housing Manuals suggested that a proportion of conventional houses with gardens might be included in new housing developments so long as these low-density enclaves were counterbalanced by high-density flat blocks. (45) The Design Bulletin, Residential Areas - Higher Densities stated:

"No one contends that family living at densities of 100 persons per acre is ideal, but high density development meets the needs of families without small children, who prefer to accept the limitations of flat life in order to live near their work or in their home town rather than move away from the area altogether." (46)

The attitude of the Sheffield policy makers, however, was more radical. The new flats were considered "comparable with houses on the ground" and the lack of gardens was a feature which was never questioned by professionals or politicians alike.

If the opinion of the professional architects and planners in Sheffield was in support of high-density flats, the local politicians were generally no less committed to flats, and for the most pragmatic of reasons. Land was increasingly in short supply. Suburban expansion in past years had taken up most of the readily developable sites such as the Manor and Parson Cross. Those that remained were often on difficult slopes, or on land liable to subsidence, or on restricted clearance sites close to the city centre. After the refusal of the proposed boundary

extension the only viable alternative, at any rate in terms of the subsidy available and the professional advice tendered, was flat building on a large scale. The enthusiasm for experimentation with industrial building techniques which was shown in Sheffield also served to reinforce the trend towards flat building and again shows a parallel with the experience of most large cities during this period. This combination of circumstances, more than anything else, produced high flatted blocks, first in the inner areas of the city, but increasingly on its outskirts. Eventually high blocks of flats were built at Stannington and Gleadless, in areas which could only be described as suburban.

As well as building point and slab blocks, Sheffield produced several large mixed developments where the dwellings were predominantly low-rise. Yet on these estates too, the influence of new ideas on housing layout had an effect on the size of gardens provided. The Greenhill/Bradway and Gleadless Valley estates serve as useful examples of these changes. Both of these schemes adopted a mix of development, including high and low flat blocks and maisonettes as well as conventional two storey houses. Table 2.4 shows the relevant proportions of the different types of dwelling.

Table 2.4: Proportion of Dwelling Types - Greehill/Bradway and Gleadless

	<u>Gleadless</u>		<u>Greenhill/Bradway</u>	
	N	%	N	%
Flats	1151	25	1038	32
Maisonettes	949	21	542	17
Houses	<u>2387</u>	<u>54</u>	<u>1656</u>	<u>51</u>
TOTAL	4451	100	3236	100

Source: Sheffield Housing Department Committee - Ten Years of Housing in Sheffield 1953-63

The spacing of dwellings in both of these very large developments was generous, but as is apparent from figure 2.17 and 2.18 the large amount of open space provided did not necessarily imply larger gardens. The reasons are threefold. Firstly provision of parking facilities was a new feature of these and many other Local Authority estates. At this stage it was usually provided in blocks, some little way from the dwelling, and provision was by no means as high as it is today, one space or garage for every two dwellings being typical. Nevertheless the land required for parking necessarily subtracted land from the total available for gardens, given the overall density constraint of around 70 ppa at which both developments were designed. Secondly a great deal more communal open space was included in these schemes than in previous development. The wooded and hilly nature of the site, particularly in the Gleadless Valley, where the designers attempted to conserve the flow of natural landscape through the site, was part of the reason for this large amount of open space. However the desire to use open space as a linking medium to create architectural unity, regardless of the nature of the specific site, was a feature which was common to many Local

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Authority estates, both high and low rise, in many other cities at this time. One particular method of achieving this unity was to design open plan front gardens with all the houses. Figures 2.17 and 2.18 show that this feature was used exhaustively. The illustrations also show that only conventional two storey houses were provided with rear gardens, flats and maisonettes having to rely almost entirely on public open space provision. The gardens which were provided show a marked reduction in size from those provided with earlier Local Authority housing. The utilisation of narrow house frontages, to reduce service costs, and the emphasis on communal open space provision had the result of reducing rear garden size to an average of about 400 square feet. The third factor which served to reduce the size of the gardens provided was the adoption of Radburn layouts, which were a feature of many parts of Greenhill/Bradway and Gleadless. This system of pedestrian/vehicle segregation was devised in response to the danger to pedestrians presented by the increasing amount of vehicular traffic. Originally an American invention, specifically at Radburn, New Jersey, it was adopted with some alacrity by British planners in the 1950s. The demands of a system of footpaths either wholly or partially separate from the road system, depending on the actual method chosen, could make great inroads in the amount of space available between blocks for private gardens and reduce their privacy. Figures 2.17 and 2.18 again shows how this system affected layout design at Gleadless. The use of the Radburn systems at least in partial form was widespread in many Local Authorities and new towns. Harlow and Basildon built particularly complete

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examples, which were later used along with Greenhill/Bradway as the focus for a DoE study of the usefulness of Radburn layouts.
(47)

vi) The Private Sector

Private sector house building during the period 1950-64 shows markedly different characteristics from the public sector, both in terms of numbers of completions and design and layout. Since 1954, when building licences were abolished, Central Government had encouraged the private building industry to expand its activity. The results are shown in figure 2.19. By 1958 total completions in the private sector were outstripping those in the public sector, and this increase continued until 1964 when 63,000 more dwellings were completed in the private sector than in the public sector. In marked contrast to those in the public sector, the vast majority of new dwellings in the growing private sector were provided with gardens. This high level of garden provision can be attributed to several factors. The overriding influence on garden provision, as always, was density, and densities remained very much lower in the private sector during this period than in the public sector. As in the previous forty years around 12 dpa was the norm. Consumer demand is usually cited as the explanation for these comparatively low densities. The Town and Country Planning Association, through the editor of its Journal, Frederic Osborn, continually pointed out the high level of public demand for gardens in the 1950s and 1960s but whether these expressions of opinion or any surveys which concluded in favour of large-scale garden provision had

any real influence on speculative builders' policies is impossible to say. There is even some evidence to suggest that private developers were interested in providing flats and the type of mixed development common in Local Authority developments. Thus the Calthorpe Estate in Birmingham planned a section of its new development in the form of multi-storey flats and indeed had built 120 flats on the estate by the summer of 1960. (48) The overall scheme, however, proved unpopular with local politicians and was delayed. The popular reaction against high rise later in the 1960s sealed the fate of this enterprise and the remaining sites were redeveloped mainly with conventional single-family houses and gardens.

In general, however, private sector development did stick to the house and garden low density formula which had proved so popular for the previous thirty years and more, and it is its past success which must be seen as the basis for the continuance of this form of housing. The private builder tends by nature to be conservative in his attitudes and sees no reason to change a basic design which has proved successful in the past. If this can be interpreted as responding to the market, then we can suggest that consumer demand for a house with a garden was a primary factor in the maintenance of this tradition.

Circumstances in the late 1950s and early 1960s also favoured lower densities in the private sector than in the public sector because of the greater availability of land to the speculative builder. The shortage of building land resulting from the restrictive Central Government policies already discussed, was far more effective as ^a control on public sector housing development than on private. When the Town and Country Planning

Act, 1953 removed the disincentive to landowners to put land on the market by allowing market prices to be paid for development land, this revision of policy proved far more useful to the private builder than to Local Authorities. Whilst Central Government advice to them continually advocated the utilisation of inner city land and cleared sites, private developers, encouraged to expand their activity by the advice of the White Paper, Houses - The Next Step, 1953, concentrated on building low density suburbs on greenfield sites.

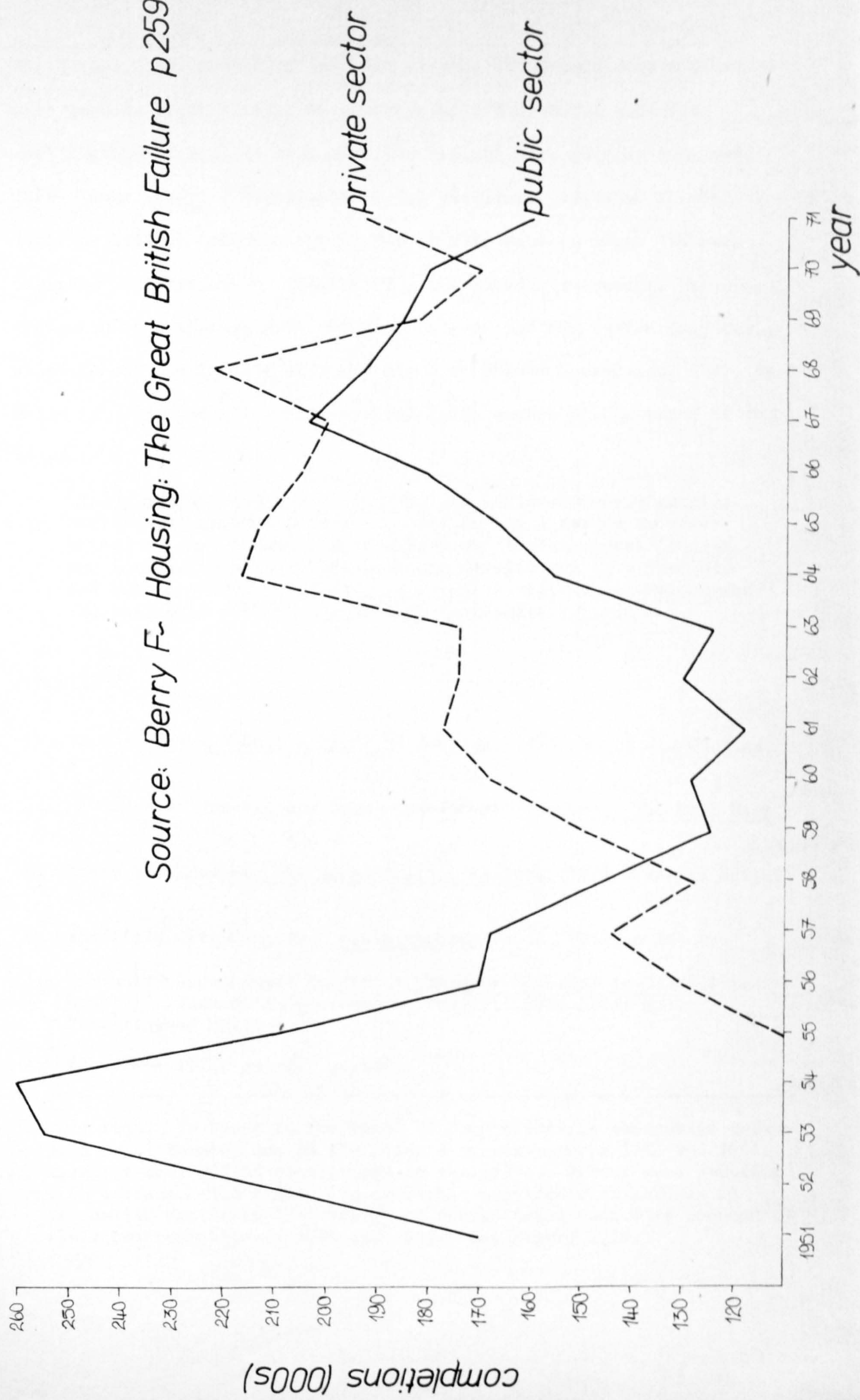
Indeed the decade from 1955 to 1965 saw both tremendous expansion in the size of many building firms and the amount of activity in the speculative building trade, and a great improvement in terms of the internal standards of house design. Burnett points out many of the features such as central heating, better fitted and equipped kitchens, adequate power sockets, increased storage space and the provision of garages, which helped promote the idea of owner-occupation both then and later. (49) He omits any discussion of the external layout apart from briefly mentioning the front garden as a status symbol. Nevertheless some changes are apparent in the layout of speculative housing in the 1950s and 1960s as compared with typical pre-war private development. The increased controls over estate development vested in Local Authorities by the Town and Country Planning Act, 1947 produced a general tightening up of development. Ribbon development was not favoured, because of the waste of 'back-land' it entails, so developers tended to be pressured into providing estate roads and services on a much larger scale than in the 1930s. Nevertheless the effect on

garden provision of these changes was minimal, mainly since spacing standards between blocks remained at the standard seventy feet, and there was considered to be no merit or necessity in raising densities much above twelve dwellings to the net acre.

The private sector then provides an example of housing development which continued as ever to provide gardens. Within the public sector too, traditional single-family dwellings continued to be the norm in some areas. Most rural Authorities for example built their council houses to conventional designs and provided generous gardens. Because subsidies were available only for slum clearance the total costs of such general needs housing had to be borne by the relevant Authority - thus conventional designs were probably the most economic.

But above all the period 1950-64 saw both a reduction in the amount of garden provision in the public sector and a reduction in the size of those gardens which were provided, when compared with the gardens of earlier Local Authority housing. The amount of space available for gardens was less, because of the increased density of development and because of the amount of space taken by competing land uses such as communal open space, pedestrian circulation routes and parking. The drop in the level of garden provision is illustrated in table 2.4 which shows that only 54% of dwellings at Gleadless and 51% at Greenhill/Bradway had gardens, and this level of provision is generous when compared with the model schemes outlined in Flats and Houses - Design and Economy, 1958 (see table 2.3). Furthermore many flatted developments such as Park Hill and Norfolk Park in Sheffield and many similar schemes elsewhere, made no provision for private garden space. So

Fig 2.19 PUBLIC AND PRIVATE SECTOR HOUSING COMPLETIONS
1951-72



while some Local Authority and most private developments were provided with gardens at this time, an average of 37% of Local Authority dwellings built between 1955 and 1964 did not have gardens provided. (See figure 2.14) Consequently of all dwellings completed between 1955 and 1964 in both the public and private sectors about 77% were provided with gardens.* Thus there was a marked discrepancy between the number of dwellings with gardens provided and the demand for them, which Osborn continually asserted stood at 90% of households. (50) As early as 1952 Frederic Osborn had dolefully summed up the trend of the decade:

"Young men and women in thousands are still obviously getting married and wanting a house to live in and a garden to grow things in; but farmers, food scares and architectural fancies are forcing them into flats. I ask myself: why is a fashion, and a mere minority fashion, so powerful against my commonsense and unaltered wish of the mass of customers?..." (51)

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2.6 1964 - 1979

As in previous elections, housing was a major issue in the general election of 1964. Whilst private enterprise building for sale had steadily increased since the late 1950s, public sector completions has suffered a parallel decline until 1964, when they began to rise again in anticipation of the election. (See figure 2.19) The incoming Labour Government, which in opposition had been highly critical of Conservative housing policies, committed itself to a huge expansion in the housing programme, setting a target of 500,000 houses a year by 1970. (1) Completions were to be split equally between the private and public sectors, and thus an overall increase in Local Authority house building activity was envisaged. However the new Labour Government also revealed a shift in emphasis from traditional Labour policies in its strong support for owner-occupation and the private enterprise builder. This shift is discernable in the White Paper Housing Programme 1965-70 which set out the Government's policies.

The White Paper recognised

"...a large and increasing demand for more houses for owner-occupation..." (p5)

Whilst it was realised that the poorest sectors of society would not be able to afford to buy housing and therefore would still require new general needs council housing, owner occupation was now to be encouraged as the main tenure type.

"The expansion of building for owner occupation on the other hand is normal; it reflects a long-term social advance which should gradually prevade every region." (p8)

Thirteen years of Conservative encouragement of the private sector had increased the proportion of owner-occupied dwellings from 31% of

the housing stock in 1951 to 47% in 1964. (2) As a result Labour saw any attempt to reverse such a popular trend as futile. In this respect the design of Local Authority housing during the ensuing period is especially interesting, since, having accepted that owner-occupation was a popular and generally socially desirable policy, and given that almost all dwellings in owner occupation were in the form of single-family houses with gardens, there could be little apparent justification for constructing dwellings in the public sector which were radically different from this norm. In fact the period from 1964 to 1970 did witness changes in both the method of financing public sector housing projects, and in the design advice given to Local Authorities by Central Government. However, the extent to which designs on private sector lines were incorporated, is a matter for debate.

The year in which Labour took office marked a peak in the official popularity of the high rise flat. Thereafter approval of work on flatted blocks of fifteen storeys and over steadily declined. Approvals for blocks of ten to fourteen storeys were already declining from 1963.

This decline represents in part the success of the anti-high flat lobby and a growing awareness by Government and professionals of the unpopularity of such developments.

Both Government sponsored research bodies, such as the MoHLG Research and Development Group, and individual academics and researchers carried out sufficient work during the 1960s to demonstrate that there were serious problems involved in life on high density and high rise estates, which resulted directly from the design and layout of the blocks and dwellings. The MoHLG Research and Development Group's study of the St Mary's redevelopment project in Oldham and

the associated study leading to Design Bulletin 21 - Families Living at High Density, which was published in 1970, but based on research carried out in 1963, highlighted specific complaints by tenants of high density estates. (3) Criticisms included problems of noise, lack of privacy, feeling shut off, damp, condensation, and difficulties involving childrens' play space and supervision, heating, drying washing and refuse disposal. Such problems were common to all three sample estates in the study in Leeds, Liverpool and London and were thus taken to be representative of many high density estates elsewhere. Whilst the number of respondents specifically mentioning the lack of garden as a problem, and expressing a desire for access to one, varied considerably, there is no doubt that the provision of private gardens in association with conventional dwelling types would have alleviated many of the problems which the research highlighted. Furthermore, studies by the same group, of low rise high density developments in West Ham and Sheffield, both of which included a high level of garden provision, showed that the vast majority of tenants made intensive use of their gardens, and many would have preferred more space than the designs allowed for. (4) Social survey work in Oldham further showed that amongst slum dwellers who were to be rehoused...

"...nearly everyone would rather be rehoused in a house or bungalow than in a flat." (5)

Increased awareness on the part of Central Government of the dissatisfaction felt by many residents of high density estates therefore was no doubt a factor in the changes in design which were made in the late 1960s. However perhaps of greater importance were factors other than the perceived needs of Local Authority tenants.

The new Labour Government was well aware of the anomolous situation which had existed since the early 1950s in respect of land values. As we have seen the restriction of outward urban growth and the refusal by Central Government to sanction Local Authority boundary extensions had been an indirect result of the dual standard operating in respect of land values. An attempt was therefore made to rationalise the whole problem of land development costs and gains by means of the Land Commission. Whilst a primary aim of this body was to divert the major share of the development value to the State, it was also intended to facilitate the release of land for future development by the creation of a land bank.

In addition, the new Government proved itself far more ready than its predecessor to sanction boundary extensions to enable Local Authorities to develop suburban council housing. For example Birmingham, which had been pressing Central Government to allow it to expand throughout the 1950s received a boundary extension in 1964 to allow for overspill, (6) Sheffield too, received premission to extend its boundaries to incorporate the proposed new development at Mosborough (7) (1966). Thus the new Government quickly showed itself willing and able to undermine the power of the agricultural lobby which has been suggested as a major factor in maintaining high urban densities during the previous decade.

Academic interest in the actual scale of urban land take had inevitably been aroused by Conservative policies. The publication of an article in New Society (8) by Robin Best, which argued strongly against continued high density development on land saving grounds, was therefore timely. Best argued that in 1966 urban uses occupied 11% of the total land area of Great Britain; 80% was in agricultural use and the

remainder forests and woodlands. The average rate of transfer to urban land use since 1950 has been in the order of 35,000-40,000 acres per year. There was no tendency to sustained increase. Thus between 1955 and 1966 agricultural acreage had declined by 1% whereas net output from agriculture, due to improved methods, had increased by more than 30% over the same period. Given lower residential densities in future, and even assuming an increase in demand for land for urban uses, by the year 2000 urban development would be unlikely to occupy more than 15-16% of the total land surface in Britain. Coupled with Best and Ward's previous work on the potential output of food from private gardens, (9) the argument in favour of low density development in future was shown to be strong, and in addition the inherent fallacy in the land saving argument was revealed. Best also argued that the development costs of high density, and particularly high rise, housing far outweighed any savings on land costs afforded by higher densities, and cited Stone who had estimated that raising net densities from 40 ppa to 60 ppa would add 20% to development costs. Central Government, according to Best, was well aware that...

"...houses and flats in two storeys generally cost less to build..."(10)

This latter observation was proved correct by the removal of the extra subsidy on high blocks by the Housing Subsidies Act, 1967. The collapse of Ronan Point in 1968 served to epitomise contemporary feelings about high rise and brought widespread media attention to many of the arguments against building similar housing in future.

Despite the many indications to the contrary however, the flat was not abandoned by Local Authorities in their housing programmes, and the issue of density remained at the focus of the design process. The

new subsidy arrangements, based on the cost yardstick, were a radical departure from previous methods of financing council house building, but, just as previous subsidies had been designed to produce specific forms of development, so the provisions of the Housing Subsidies Act, 1967 were no exception. Whilst the building of expensive high flats was no longer favoured, low rise development at moderately high densities was encouraged. So whilst it is possible to argue that in removing the subsidy on high rise the Government was acting in the interests of the consumer and reacting to the undercurrent of feeling against this form of housing, the validity of this hypothesis is strained when we examine the type of alternative housing which the cost yardstick permitted, and especially when we consider the case of the private garden.

The yardstick favoured net densities which were considerably lower than the extremes of the previous system. Nevertheless there was no reversion to the old and supposedly wasteful level of 12 dpa. Extra subsidies were also still payable on flats and expensive sites as an encouragement to build on high value inner city land. A typical example of a scheme built under the yardstick is The Lanes, Rotherham. This is a mixed development of flats and houses built on a patio basis. (See figure 2.20) The net density of the scheme, 68.4 ppa or 19 dpa, is typical of the yardstick requirements of the time. The effect of this density is to produce gardens and patios of a very limited area, 450 square feet being about the largest patio size available. In defence of this scheme, however, it must be mentioned that even flats above ground level have been provided with patios by means of careful use of changes in level on the site.

Schemes of similar densities to The Lanes, dating from the late 1960s, are common throughout the country, though many pay much less

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attention to the individual family's needs for private open space and concentrate on communal landscaping. (11) The St Mary's redevelopment scheme at Oldham, built 1966-67 is a prime example. Here 35% of dwellings are in the form of houses with private garden space, 65% are low rise flats, without gardens. This area, prior to clearance, was the subject of the design bulletin Living in a Slum, which specifically recognised that almost all the residents about to be affected by the clearance and redevelopment would prefer to move to a house rather than a flat! (12) In the light of such evidence it is difficult to suggest that the demise of high rise was entirely the result of official recognition of residents' housing preferences.

As always there were pressures external to the direct assessment of consumer preferences, which affected Government policies in public sector housing and garden provision. In the late 1960s the factor which dictated these policies to a very great extent was land values. Peter Hall in The Containment of Urban England shows that during the period 1960 to 1970 land costs as a percentage of house prices increased dramatically. Table 2.5 shows the scale of this increase.

Table 2.5: Ratio of Land Price to Total House Price

	<u>The Range of Ratios 1960 - 1965 - 1970</u>			%
	<u>1960</u>	<u>1965</u>	<u>1970</u>	
North West England	4-10	10-14	20-26	
West Midlands	8-10	11-13	18-24	
Outer Metropolitan Area (W)	10-12	11-21	25-38	
South Hampshire	8-12	13-14	21-25	

Source: Hall P - The Containment of Urban England, Vol 2, 1973,
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Crawford, in A Decade of British Housing also points out that whilst during the period 1959 to 1972 shares rose 192% and house-building

costs (ie wages and materials) doubled, the average price of an acre of agricultural land rose 662%. (13) This huge rise in land prices had an effect on the designs employed in both the public and private sectors. In the private sector densities increased as builders attempted to place more houses on a given site in order to recoup their expenditure on expensive land and at the same time to keep house prices from escalating. Thus in new development average residential density increased from eight to ten dpa in NW England and from eleven to thirteen in the West Midlands. (14) These increases in density were necessarily at the expense of the private garden which decreased in size along with individual plot size. Nevertheless densities in the private sector still rarely exceed 15 dpa, so gardens capable of satisfying the majority of residents (according to the criteria set out in Section One) were still provided. A manifestation of the reduction in space available for front gardens, and a legacy of the ideas on aesthetics discussed earlier in 2.5, was the popularity amongst private developers in the 1960s of the use of open plan fronts. The absence of boundary fences and hedges between plots was thought to produce a greater visual unity and helped to conceal the often small area of the individual garden plots. This confusing compromise between public and private open space, however, created more problems than it solved, especially in terms of maintenance, and did not prove generally popular with residents. (See 3.4)

Whilst the effects of increased land prices raised densities in the private sector, densities still did not reach public sector levels. Here the yardstick encouraged cost-effective solutions, which meant no more high rise, but at the same time ruled out densities lower than around 70 ppa (18 dpa) (15). Coupled with the increased awareness of

the need for car parking space, the desire to create separate pedestrian and vehicle circulation systems, and a perceived need for areas of communal landscaping and play space, such densities did not allow much space for private gardens, even when provision was universal. But in many schemes provision was by no means universal. As in the previous decade and beyond, recognition of residents' preferences, and the ideas of professionals as to what a residential environment should contain, seemed to be at odds. In Sheffield's Mosborough Master Plan, for example, the opinions of the Parker Morris report concerning garden space are clearly echoed:

"The demand for large gardens is declining as other interests are becoming more popular." (16)

Yet the plan goes on to suggest that gardens are generally popular and suggests a range of sizes which might be appropriate for different household sizes. 600 square feet is reckoned adequate for large families, 400 square feet for smaller families and 200-300 square feet per acre for two person households, especially old people. Here we have an excellent example of the inherent schizophrenia of the Local Authority planner of the period, whose common sense and experience in practice suggested the importance of decent sized gardens but whose professional training and Central Government advice notes suggested otherwise. The land cost factor also mitigated against large gardens, but equally important the lack of information on the effect of increasing leisure time on garden usage made Parker Morris the only official source of guidance to Local Authorities such as Sheffield.

In summary then despite the research evidence already available, and the interest in the private garden shown by researchers such as Cook and Bradley (17) during the latter years of the 1960s, there is

little to suggest that the garden was treated as a factor of major importance by designers. Indeed although the situation in the public sector improved slightly with the removal of the high rise subsidy and an overall increase in garden provision, in the private sector it worsened. Gardens provided in new developments were smaller than in the past, and some developers even began to build flats for first time buyers in order to keep costs down. (18) Thus as so often in the past the high cost of land proved to be the implacable enemy of the private garden.

By 1970 the boom in high rise flat building in the public sector was declining. (See figure 2.15) Central Government interest in industrialised building techniques as an economy measure had not yet waned, as was illustrated by the publication of Design Bulletin 18 in 1970, though the emphasis had now shifted towards low rise forms. Based on the development of a site in Sheffield, this Bulletin examined the use of systems building techniques, principally the 5M system, to construct low rise single-family housing. (19) The Bulletin comments that despite the relatively high density of development (78 ppa)...

"...it was again found possible to use houses only (one and two-storey) and to avoid flats of maisonettes..." (p2)

Furthermore it was recognised that...

"All houses should have a private garden orientated if possible to catch the afternoon sun." (p8)

The tacit recognition of the unpopularity of maisonettes and flats in any form, low or high, in an advisory design bulletin concerned with industrialised building techniques was a step forward, though it should also be noted that this particular development was intended only for families;

"...smaller households would be accommodated in flats on other sites to make up the overall density..." (p5)

The results of the social research of the 1960s which illustrated the unsuitability of flats for families with children were evidently heeded here, though the view that other households were content with flats was still strong.

Whilst many new Local Authority housing developments continued to utilise systems technology, the emphasis in Central Government policy was shifting in the early 1970s away from new-build. This shift was progressive from 1968 onwards, and was supported by both the Labour Government who initiated it, and the Conservative Government who came to office in 1970. For the former it represented an economy measure, for the latter it was an alternative to the expansion of council house building, and an element in the Conservative drive towards a nation of owner-occupiers. In the place of a large programme of council house building resources were channelled into programmes of renewal of the existing housing stock. The adverse public reaction to large scale clearance and redevelopment had persuaded Central Government of the lack of support for continuance of that policy. The implications for garden provision of this shift in policy were various. Firstly the reduction in new council completions (180,000 in 1970, 107,000 in 1973 (20)) allied to encouragement from both parties for private sector building, implied that a relatively greater proportion of dwellings provided with gardens would be built. Secondly the policy of improvement meant that many nineteenth century terraces, sometimes without gardens, sometimes with only very small gardens, had their life prolonged whereas they might reasonably have been expected by this time to have been replaced by superior accommodation. Furthermore, improvement, especially of terraced houses, often entails the addition

of offshot kitchens or bathrooms. When these extensions are located in the rear yard or garden, as they usually are, they can take up valuable garden space, and thus reduce this important aspect of the amenity of the dwelling, whilst seeking to improve another. Central Government advice to Local Authorities during this period however makes no recognition of these implications for the private garden.

As the decade progressed public sector housing development showed a gradual increase in the proportion of traditional single-family houses up until 1975 and a concurrent decrease in the number of flats, though this decrease was much more marked in the case of flats above five storeys in height than in those below this height. (See table 2.6.) After 1975 however, as table 2.6 shows, the proportion of two and three storey houses again dropped and the proportion of low-rise flats increased. Parallel with these changes the average density of Local Authority housing developments dropped from 19 dpa in 1970 to 17 dpa in 1974 and 75, but then rose again to 19 dpa in 1977, remaining at this level in 1978. (21) Thus between 1969 and 1975 Local Authority housing development showed a slight tendency towards achieving a more satisfactory balance between houses and flats, but since 1976 this trend has reversed. The density of development has nevertheless been sufficiently low to allow for the provision of small gardens with most houses and indeed flats need not have been built. Local conditions, as always, have varied. Sheffield for example has tended, especially since the mid 1970s to build at lower than the national average density. This policy resulted in the Langsett estate, where almost all units are traditional houses and the density of 15 dpa allows for adequate garden provision with all units. (See figure 2.21)

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Table 2.6: Local Authority Housing (dwellings approved) 1969-78 , England and Wales (excluding GLC) by storey height

(All percentages)	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>
Houses: 1 storey	9.7	9.1	10	9.8	11.3	10.7	8.1	7.8	9.3	10.9
2+3 storeys	40.8	42.4	40	38.7	43.6	45.2	52.6	49.5	45.3	44.3
Flats: 1-4 storeys	35.9	30.6	41.4	44.1	41.7	41.6	38.1	40.9	44.1	42.2
5-9 storeys	8	7.2	5.2	5.4	2.7	2.2	1.2	1.3	1.3	2.5
10-14 storeys	1.8	1	1.5	.7	.2	.2	-	.3	-	.1
15+ storeys	3.8	1.7	1.9	1.3	.5	.1	-	.2	-	-

Source: Housing and Construction Statistics 1969-79, HMSO p92

If the financial constraint of the cost yardstick was the prime determinant of density in the public sector, in the private sector the constraint of land acquisition costs was no less instrumental in determining development densities. Throughout the last decade plot sizes in the private sector, especially in first time buyers' housing, have decreased and development density has increased. Thus gardens, whilst still almost universally provided, have shrunk in size. Hall for example cites survey evidence which suggests that the average first time buyers total plot (house and garden) in the early 1970s covered 300 square yards rather than the 450 square yards usually occupied by an inter-war semi. (22) This reduction in plot size represents an increase in net density from 12 dpa to 18 dpa. DoE statistics show that the cost of private sector housing land rose far more steeply than the costs of either materials or labour up until the mid 1970s. It then fell back and followed the trend of labour and materials until 1978 when the cost of land again began to outstrip these other factors. (23) The parallel rise in private sector densities is no doubt a function of these price fluctuations.

The search for design solutions which might allow densities in the 18 dpa plus range and yet overcome the usual restrictions set by Local Authority planning departments was one result of the factors mentioned above. A manifestation of this process was the plethora of design guides which appeared in the mid 1970s. The publication which served as a model for most subsequent design guides was devised by the County Council of Essex where there was intense pressure for suburban development on the outer North-Eastern fringe of London. Given that the recommendations of the Essex Design Guide (24) were so often plagiarised it seems that its ideas were enthusiastically supported by a large body of professional opinion. A concern with

'land saving' is immediately apparent in the Essex guide, and average densities in the range 13 to 15 dpa are recommended (p22). Unusually, however, when contrasted to earlier, Central Government advice, which incorporated land saving and density as major themes, the private garden is considered in some detail. The minimum recommended garden area is 100 square metres (1,080 square feet) though it is also recognised that in patio dwellings, where privacy in the garden is of very high quality, 50 square metres, (540 square feet), would be acceptable, and in dwellings surrounded by well landscaped communal open space, a lesser standard might be acceptable. (p35) Apart from the latter point, the recommendations are in complete accord with the research findings cited in 1.4. The high degree of expertise and sound design advice shown in the Essex guide in particular, serves to overcome the problems which can arise out of development at 15 dpa plus. The straightforward recommendations regarding garden size are also laudable and again represent the overt recognition of the value of a decent sized, properly screened garden. In particular the reduction in space between opposing frontages, and occasionally the abolition of the front garden, is one method used in the guide to increase density but maintain large rear gardens.

Whilst the Essex Design Guide and its derivatives were instrumental in producing good quality housing in several parts of the country, their effect has not been widespread. As 3.5 shows, attempts to increase site densities without the benefit of such careful design advice can lead to very poor layouts, which suffer, as one of their most prominent ills, from grossly undersized gardens.

Nevertheless although a great deal of housing development in the private sector became of an increasingly poor quality, especially in

respect of garden sizes, as densities increased, the use of the better quality design guides in some private sector developments, and the expertise available in Local Authority housing departments with design responsibility for council housing, to some extent countered the deficiencies brought about by the necessity to develop low-rise single-family housing at 15 dpa plus during the 1970s.

The past decade also witnessed two further innovations which have implications for garden provision. In the mid 1970s concern was expressed over the demographic changes which were producing an increasingly high proportion of old people in the population. Allied to this, the tendency towards smaller families, childless families, single parent families and young single people living away from the family home, was increasing demand for smaller units of accommodation. DoE circular 24/75 suggested that a large proportion of output in both public and private sectors should be devoted to dwellings for small households. (25) Whilst nationally this advice did not produce a dramatic change in the type of new dwellings constructed in either the public or private sector, it was significant. Several Local Authorities, including Sheffield began building more old persons bungalows on the assumption that already-existing family accommodation would become vacant as old people moved into the new purpose-built dwellings. At the end of Chapter 1.3 it was suggested that the national shortage of dwellings with gardens, exacerbated by the generally slow rate of residential mobility from large to smaller accommodation, was a problem which possibly lent itself to politically derived solutions, and this example of filtering, which still forms a basis for housing policy in Sheffield in 1981, is one such attempt. Nationally however, as table 2.6 shows, the proportion of small units of accommodation built

by Local Authorities, in so far as these are represented by the figures for single-storey houses, did not substantially increase during the 1970s. In the private sector little or no positive action resulted from the advice of circular 24/75 and no exact figures for completions of different house types and sizes are available.

The second and innovatory feature of the 1970s which again, although limited to a very small number of units in terms of the national output of owner-occupied housing, could have important implications in the future, was the construction of dwellings by private developers on inner city land, principally in Liverpool. (26) The transfer of wholly suburban designs, at suburban densities with ample gardens, into the heart of a major conurbation was facilitated by the sale of the land which because of its location traditionally demanded a very high price, by the City Council to the developers at a much reduced price. Thus the main argument for developing at high density (which would have discouraged private developers) was overcome. Given that this type of development could be repeated in other cities, where the Local Authority owns plots of derelict land, schemes of this sort offer a possible solution to the location specific problem of garden deprivation outlined at the end of Chapter 1.3.

The 1970s then, saw the end of the era of experimentation with high rise, and hinted at a greater professional awareness of the desire of most residents for a garden. However flats were not abandoned and remained a large proportion of public sector housing completions. In the private sector, increased land prices forced a general tightening up of density which in many cases produced smaller gardens. Garden provision nevertheless remained the hallmark of the private sector. Government encouragement for owner occupation raised the proportion

of owner occupiers from 50% in 1969 to 56% of the housing stock in 1979. (27) Despite this encouragement, and despite the innovatory policies regarding smaller units of accommodation and increased owner occupation within the inner city, the provision of gardens remained very much a background issue, subsidiary to a range of other design factors, amongst which density was the primary issue.

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27. DoE - 1980, op cit, p 121

2.7 CONCLUSIONS

The discussion of the period set out above has illustrated the powerful effect that factors apparently unrelated to the issue of garden provision have had on Governments' attitudes to housing design. Fluctuations in the economy are an obvious example. However the political complexion of Central Government has also consistently proved a decisive factor, as a result of the very diverse views of the role of the State in the provision of housing, which have been held by both major parties. Thus the strongly held Conservative view that private enterprise should be, if not the sole provider, then the major supplier of housing, has on the one hand boosted the overall supply of dwellings with gardens when that party has held power, but on the other hand, has relegated Local Authority housing to a position of 'second best'. Thus a stigma has become attached to State housing which has generally been exacerbated by the housing designs encouraged by Conservative Governments. Labour Governments on the other hand have generally viewed the State as having an important role in the provision of housing, and the designs encouraged by Labour Governments have usually included a reasonable level of garden provision. The constant changes in policy as power has passed from one party to another have highlighted the difficulties faced by State owned housing. This scenario is nevertheless too simple a view of the pattern of events, since it has been complicated by several other factors.

Firstly there has been a consistent problem over the form of housing which should be employed for slum replacement. The replacement of high density slums necessarily involves either new high density (ie flatted) housing in situ, or low density replacements both on the demolition site and elsewhere. The shifts in population which

necessarily result from the latter alternative, often involve changes in voting patterns and rateable income, which results in decision making becoming an issue in local politics. Both Conservative and Labour Central Governments have usually opted to maintain the status quo for reasons of economy, and in order not to come into conflict with Local Authorities. Conversely this same problem over shifts of population has brought Local Authorities into conflict with Central Government over both general needs and slum replacement housing. Thus, although Central Government has sought to control Local Authority spending by controlling the design of housing built, some degree of local autonomy has usually been apparent at any stage in the narrative. This political interplay has often resulted in adverse levels of garden provision in Local Authority housing.

The second complicating factor which has affected housing design in the public sector, and hence the level of garden provision, has been the problem of land values. Despite repeated attempts by both parties to reach an equitable solution on betterment, the problem of inflated inner city land prices has remained a constant disincentive to building at low densities within the urban area.

The story is further complicated by the development, throughout the period under observation, of the role of the professional architect and planner. At the beginning of the period the influence of the Garden City Movement was all pervasive, and professional belief in the importance of gardens was strong. However, this opinion, appears to have been gradually eroded, both by political pressures, and by new professional ideologies, especially those based on the teachings of the Modern Movement. Technical design advice from Central Government, which must to some extent reflect prevailing professional attitudes, has shown an increasing lack of concern with private gardens. This

trend is illustrated by the amount of attention paid to the subject of gardens in each of the three major Reports on housing produced during the period, namely Tudor Walters, Dudley and Parker Morris. The first treats gardens as an issue ^(central) to housing design, the second pays lip service to gardens, whilst concluding that the achievement of density targets must be the overriding concern, the third discounts the garden as a factor of any importance. Against this trend in design advice the consistently high level of public demand for private gardens throughout the period illustrates the increasing gap between professional and public opinion. The use of professional design 'tools' and standards relating to largely abstract concepts such as density and privacy are further illustrations of this divide. As a result of their longevity these 'tools' have become so ingrained into the planning process that even in the 1970s when the popular reaction to high rise housing brought about a shift of professional attitude which augured well for private gardens, the imposition of density constraints proved a major obstacle to the achievement of both an adequate level of garden provision and adequate garden sizes.

Generally then, we can conclude that for a variety of reasons the private garden has progressively decreased in importance in political and professional terms. Popular demand however has remained steady. What then is the current situation vis a vis the garden, and what is its likely future?

SECTION 3

3.1 INTRODUCTION

The aim of this Section is to examine current official attitudes towards garden provision, and in particular to examine current attitudes to garden provision on the part of those agencies which have been shown in Section Two to have had an important effect on decision-making with regard to garden space in the past. The historical study has shown that Central Government has in the past generally exercised a powerful control over the design of dwellings and gardens in the public sector, by means of the subsidy system. The current situation concerning public sector housing is therefore examined in the light of this knowledge. Central Government control, however, has never been absolute. Local circumstances have been shown to vary, as, for example, in the contrasting policies of urban and rural Local Authorities. So local policies too are examined in some detail in order to pinpoint any significant difference in local policies and attitudes between Authorities and Authority-types.

The historical study also suggested the importance of the professional, whether employed in Central or Local Government, as an agent in the active promotion of policy and as a powerful influence on detailed design. As a result, current professional attitudes are also the subject of investigation in this Section.

The methods of design and control, in particular the use of spacing standards in both public and private sector residential developments, are examined. Standards have been a contentious issue in residential design in the last few years, and since there is no doubt that their use has strong implications for garden provision, the discussion seeks to discover whether they indeed make a useful and

beneficial contribution to residential design, or whether they serve only to complicate an already confused field.

Finally an attempt is made to predict future trends in garden provision based on the hypotheses of historical cause and effect which have been outlined in Section Two, and on the analysis of current policy which is undertaken in this Section.

3.2 RESEARCH METHODOLOGY

In the early stages of the research it was thought that an examination of design guidance material published by Local Authorities would render sufficient data to complete an examination of current Local Authority attitudes to private garden provision. It soon became apparent, however, that formal design guidance constitutes only a small part of Local Authority policy operation in respect of residential design. Apart from a few Authorities, such as the Essex and Cheshire County Councils, which do operate formal design guides, and those which specify residential design requirements in published policy documents and local plans, there are many which do operate specific policies but which restrict their documentation to internal design guidance, advice notes, and draft policy statements. Such material is obviously not as easily accessible as, for example, the Essex Design Guide. Since it was considered important for the research to be wide-ranging in its coverage of Local Authority activity throughout England and Wales, the best solution was seen as a mailed questionnaire survey.

The survey which was undertaken involved two questionnaires, both of which are contained in Appendix IV. The first elicits basic information about the Authority and deals mainly with standards as they relate to private sector housing. This questionnaire was sent to the relevant planning departments. Its final question asked which department of the Authority was responsible for public sector housing, and on the basis of the answers given, a second questionnaire, seeking information on public sector housing, was sent to the relevant departments of all those Authorities which successfully completed the first questionnaire.

In spring 1979 a pilot questionnaire was sent out to South Yorkshire County Council and Barnsley Metropolitan District Council in order to assess respondents' attitudes to its design. With minor alterations the original draft was considered adequate. The value of this pilot exercise, however, was that it demonstrated the lack of information relevant to the project, available at county level. Development control and Local Authority housing are almost entirely district matters, and so it was decided to restrict the main survey to districts only.

i) Sampling

Although it was considered important to carry out a country-wide survey, it was decided that it was not necessary to contact every district council in England and Wales. This decision was based on the fact that of the 369 district Authorities in England and Wales, 333 are shire districts. In Section Two it has been shown that, although Central Government policies are effective in influencing decisions on the form and layout of housing in areas which are predominantly rural, the lack of pressure for development at high densities in such areas usually allows the provision of private gardens with all new dwellings. Thus it was not considered necessary to contact all shire district Authorities since a sample of rural Authorities would produce sufficient information. Consequently random number tables were used to pick one district from each shire county in England and Wales. Conversely, the effects of Central Government policy and the pressures on space from high land values and from planning policies designed to promote

containment of the urban area have been shown to have had a marked effect on the level and type of garden provision in urban areas. It was therefore felt that a total sample of all metropolitan district Authorities should be used in order to obtain as much information as possible about policies in such areas. The total number of metropolitan districts (36) also provided a manageable sample. A total sample of London boroughs (33) was also used for similar reasons.

Several large urban areas, such as Leicester, Cardiff and Southampton, fall within the jurisdiction of shire counties and it was considered important to contact these. Consequently a further category of shire districts with over 200,000 population was established and the total sample of eleven such districts was canvassed. The results of the survey group this category under the heading "Large City", but it should be understood at the outset that this category does not include any districts within metropolitan counties.

The final category of Authority contacted consists of the new towns. Again a total sample was taken since the small number involved (19) made mailing and data handling relatively manageable.

Table 3.1 shows the total sample of Authorities involved and the relative response rates to the first questionnaire. The column headed total response in the table shows the total number of Authorities who replied to the questionnaire. However not all of these actually completed the questionnaire. Several Authorities in each category wrote, variously claiming that pressure of work, staff shortages, and the cuts forced upon

Table 3.1: The Authorities surveyed and response rates (First Questionnaire)

	Total Sample		Total Response		Positive Response	
	N	%	N	%	N	%
Metropolitan District	36	100	21	55	17	47
Shire District	47	100	31	66	26	55
London Borough	33	100	25	76	21	64
Large City	11	100	10	91	8	73
New Town	<u>19</u>	<u>100</u>	<u>11</u>	<u>58</u>	<u>9</u>	<u>47</u>
TOTAL	<u>146</u>	<u>100</u>	<u>98</u>	<u>67</u>	<u>81</u>	<u>55</u>

Local Government spending by Central Government, made it impossible to provide the information requested. The actual proportion of responding Authorities who successfully completed the first questionnaire appears therefore in the third column of Table 3.1 headed 'Positive Response'. As the table shows, the positive response rate varied between Authority-types; the metropolitan district and the new town response were the lowest at 47% of the Authorities contacted, and the large cities showed the highest response at 73%. The overall response was 55%. Since the questionnaire covered several aspects of development control policy for residential design, and not just the question of garden provision, the response rate which resulted is not thought to be a reflection of differing attitudes between types of Local Authority as regards policy, but is more likely to be a reflection either of the varying workload between Authorities or simply of the attitudes to questionnaire response of the individuals in each Authority who deal with such matters. It was also apparent from follow-up telephone calls to many of the Authorities who did not initially respond, that the questionnaire tended to be passed from one person to another and become lost

in the system. This initial round of questionnaires was carried out in July/August 1979.

Approximately six months after the completion of the first round of questionnaires the follow up questionnaire on public sector housing was sent to all those Authorities who had responded positively to the first round. The response to this was much higher than to the first questionnaire. All the Authorities who responded did so positively by completing the questionnaire, and after letters and telephone calls had been used as reminders, a total response of 86% was recorded on the second round. The details of response rates are shown in Table 3.2 below.

Table 3.2: The Authorities surveyed and response rates (Second Questionnaire)

	Total Sample		Response	
	N	%	N	%
Metropolitan District	17	100	16	94
Shire District	26	100	25	96
London Borough	21	100	15	71
Large City	8	100	6	75
New Town	<u>9</u>	<u>100</u>	<u>8</u>	<u>89</u>
TOTAL	<u>81</u>	<u>100</u>	<u>70</u>	<u>86</u>

The very different relative frequency of response, as compared with the response to the first questionnaire, provides further support for the view that the response rate is linked to the attitudes of individuals dealing with questionnaire response within Authorities rather than to any Authority policy as regards answering enquiries or to the content of the questionnaire. The full list of Local Authorities contacted and their response to each questionnaire is set out in Appendix IV.

ii) Content of the Questionnaires

The aim of the questionnaire survey was to gather information on current Local Authority attitudes to the provision of private garden space, and to ascertain whether the differing conditions within the Local Authority areas have any effect on the official policies operated. This was the main reason why the sample was broken down into categories of Authorities as illustrated in tables 3.1 and 3.2. It was thought for example that since pressure on space is more intense within existing urban areas, and thus the garden is potentially more vulnerable to the demands of competing land uses such as roads, parking, public open space and pedestrian circulation space in such areas, the Local Authorities controlling development there would demonstrate a distinctive attitude towards garden space provision. If the garden was considered important by the Local Authority then we could expect a higher incidence of standards pertaining to it in predominantly urban areas than in rural areas. Thus we would expect metropolitan districts, London boroughs and large cities to show a greater frequency of operation of standards relating to gardens than we would the shire districts. However, if, as the historical analysis of policy had led us to believe, the garden was not held in any great esteem by Local Authorities then we would not expect any significant difference in the frequency of occurrence of such standards between the different categories of Authority.

It was not sufficient however, to ask questions solely about the question of standards relating to the private garden. The historical analysis of policy in Section Two has shown that the

operation of standards in relation to such factors as density, sunlight and daylight angles, and privacy has in the past had a marked effect on the spacing of dwellings, and consequently on the area of land available for use as private gardens. Furthermore, the use of standards relating to these three factors in particular has been shown to be commonplace in a great deal of the advice from Central to Local Government concerning residential design over the past sixty years. Thus standards relating to density, sunlight/daylight and privacy can be regarded as tried and tested tools of the Local Authority housing designer and of the development controller. Since these three factors in particular have formed the basis of professional analysis of housing layout design for so long, it was considered important to evaluate the current frequency of their use amongst Local Authorities and to compare the relative frequencies with the incidence of garden standards. It was felt for example, since the garden had been shown to have received sporadic attention in the past, that the incidence of these other more firmly established standards would be much higher than standards specifically referring to private garden space provision.

The whole question of the use of standards in planning generally, and residential design in particular, is an area fraught with controversy. The major issues have been well documented by Forbes (1) and Woodford et al (2). It has been argued for example that the use of standards stifles creative design and leads to excessive rigidity in planners' views of what constitutes good design, thus producing visually monotonous development. By contrast, standards are regarded by many

planners as essential tools of control, which, though they are not necessary as a guide to planners' decisions on the quality of layout, can be useful as an authoritative tool with which to combat the poor design elements in developers' plans, and as a quasi-legal device to reinforce planning decisions on appeal. Between these two extremes there exist various shades of opinion on standards, and outside of this range of ideas lurks the ultimate question of whether specific standards have a universal applicability in any case. For example the extremely widely used standard relating to privacy, the seventy foot rule, has no basis in empirical research. It has simply been handed down from one generation of planners to the next. It can be argued of course that years of application of this rule with no obvious dissatisfaction shown on the part of the consumers is adequate proof of its merit, but it is equally valid to suggest that a blanket standard of seventy feet between opposing windows cannot possibly provide a universally satisfactory environment when concepts of privacy are so loosely defined and subjective anyway.

Of particular relevance to this research project is the question of whether the existence of standards relating to various aspects of design is a good indicator of the general level of interest in design in particular Authorities. As one respondent succinctly stated;

"...the exercise of professional judgement in processing applications is as valid as the blanket application of pre-conceived policy. Just because a specific policy does not exist does not mean no consideration is given..."

This contention does indeed seem to be a valid argument and

must be accepted as an unavoidable constraint of the research method used. Nevertheless the questions were phrased so as to include policies and standards emanating from a variety of sources ranging from published design guides to informal advice notes or even commonly accepted (but not documented) practice. In the absence of response indicating the use of any such criteria it is difficult to envisage how consistent development control decisions can be made.

Overall it was felt that the best method of judging current Local Authority practices and attitudes was to assess the frequency and type of policies and standards employed. Furthermore, the information gathered concerning well-established and commonly employed practices was necessary for use as a yardstick to assess the importance of specific garden standards. As a basic hypothesis it was felt that the garden would not prove to be a key issue in residential design, and that this would be illustrated by a low incidence of garden standards, both in absolute terms, and relative to the incidence of other standards.

A further aim of the research was to illustrate any differences in policy and standards which might exist between private and public housing schemes. The historical analysis has shown that on several different occasions major disparities have existed between the built forms of housing in these sectors and that the private garden has been particularly vulnerable in the public sector. Thus the use of two questionnaires, one on private housing and one on Local Authority housing, sought to elicit information concerning current attitudes to the design of housing

for both sectors and to establish whether the operation of different sets of standards was the primary reason for different design features.

Finally the question of the degree of control which Central Government exercises over Local Authority house building activity has to be considered. The historical analysis has suggested that the influence of Central Government has always been powerful, through the devices of loan sanction and subsidy payments, which are generally geared towards specific dwelling forms and particular ranges of density. However, within the system there inevitably exists some flexibility; local conditions can dictate differing solutions and, perhaps most important, the input of professional planners and architects in the localities has been an influential factor. A further aim of the questionnaire analysis therefore was to test the historical model of influences on Local Authority house building put forward in Section Two and assess the degree of control which Central Government exercises at the present time.

In addition to the questions and hypotheses set out above, various detailed hypotheses, mostly resulting from the historical analysis of policy, are suggested, together with an assessment of their validity, in the discussion on current Local Authority attitudes in 3.4.

iii) Case Studies

Whilst the questionnaire survey and subsequent analysis of data were aimed at producing statistical information which could be used to test various hypotheses derived from the historical

analysis and to assess the importance of the private garden in current Local Authority attitudes, it was felt that some more detailed examples of Local Authority practice and attitudes were necessary in order to highlight specific issues and to add substance to what might otherwise prove to be a stark statistical analysis. Consequently five Local Authorities were chosen as the subject of case studies and visits were made to these during the spring of 1981. The five were specifically chosen because of their proximity to Sheffield, thus affording easy access to the researcher, but nevertheless they reflect a cross-section of Authority-types. Thus three metropolitan districts and two shire districts were used, though for reasons of confidentiality their actual names cannot be revealed. The following names will therefore be used to identify the case study districts:

- a) Muddleham - metropolitan district, Labour controlled
- b) Redborough - metropolitan district, Labour controlled
- c) Hitham - metropolitan district, Labour controlled
- d) Labshire - shire district, Labour controlled
- e) Toryshire - shire district, Conservative controlled

The choice of one Labour and one Conservative controlled district was deliberate, though when considering metropolitan districts the choice was limited by the fact that all the local metropolitan districts were Labour controlled.

The method of information gathering used in each case followed a similar pattern and was designed to achieve two objectives, namely to obtain as full a view as possible of the official attitudes and policies operated by the Authority, and to build up a picture of the individual attitudes of the

professional staff, especially in relation to their views on the importance of the private garden. This latter exercise is a corollary of the discussion concerning the influence of Central Government on Local Authorities. Throughout this thesis it has been contended that the professional input into Local Authority housing design has been an important influence on the built form, sometimes acting as a support for Central Government policy and sometimes in contention with it. Thus the case studies attempt, by way of a structured interview questionnaire (see Appendix IV), to gather information on professionals' attitudes in order to evaluate their importance in the current climate. Altogether structured interviews were carried out with eleven Local Authority professionals, ten planners and a quantity surveyor, and informal discussions took place with several more. The opinions expressed are commented upon in 3.6, though it should be stressed at this point that no statistical analysis of attitudes and relationships can be attempted with such a small sample. The aim is simply to gain a clearer insight into professionals' attitudes than was possible with the information derived from the two postal questionnaires, and to attempt to discover the origin of these attitudes. Cognisance of the research on gardens for example, and opinions about its application to housing layout design were basic areas of questioning.

It was hoped that the case study information would also serve to reinforce the suggested hypotheses, and the conclusions arrived at in the analysis of the postal questionnaire data (see 3.4). In addition, contact with Local Authorities

provided the opportunity to study development control files covering applications for housing developments. The original intention was to follow a sample of applications through from their original submission to final decision in order to observe the type of garden provision proposed and to evaluate the amount of attention paid to it by both developer and Local Authority. In practice neither suitable applications nor sufficient time were available to render this method of enquiry feasible, but it did prove possible to examine several schemes, some of which were subject to alterations and amendments suggested by the planning departments concerned, and observe the emphasis placed on private gardens in a more general context. The results of these observations are recorded in 3.5.

iv) Method of Analysis

As has already been pointed out, the data collected in the case studies of Local Authorities in the Sheffield area was not amenable to statistical analysis, because of its nature and because of the small number of Authorities and respondents involved. However, the two postal questionnaires, which were sent to 146 Authorities nationwide, were deliberately designed so as to be amenable to coding and analysis using SPSS. The mechanics of this operation are relatively straightforward and there is no need to enter into a full discussion of the process here*. However two particular problems must be discussed. The first of these concerns non-response. As far as the disparity

* For details of the SPSS package and method of coding see Nie N H et al - SPSS Manual, 1975, McGraw-Hill Book Company, passim

between Authorities which were contacted and those which replied to the first questionnaire is concerned, we can do nothing but assume that we have a representative sample, and on the basis of the discussion above (p273), this does not seem unlikely. However a problem remains with the Authorities which were contacted but did not reply to the second questionnaire. Every effort was made to obtain a 100% return on the second questionnaire, and a high response was achieved (see Table 3.2). However, all that could be done in the few cases where a reply was not received was to code the appropriate columns in the file as missing values. Thus the lack of a reply to the second questionnaire has not precluded the inclusion of the data from the first questionnaire in the analysis. Where it is felt that any significant distortions may have occurred as a result, a footnote is appended to the relevant table.

The second problem which arose in the analysis is one which is common to most research in the social sciences and results from respondents' only partially completing the questionnaires. Since most of the questions attempted to elicit a straightforward yes or no answer, blanks and omissions have normally been treated as negatives. It seems reasonable to interpret such omissions in this way since they must either indicate a lack of policy or ignorance on the part of the respondent as to the policy's existence. In the latter case the policy is unlikely to be implemented. Indeed, the possibility of a gap between the existence of policies and their consistent application is a factor which it is almost impossible to assess in this type of study, but it is recognised as another

possible source of error. Apart from these constraints the analysis is generally straightforward.

No particularly sophisticated techniques have been employed, most of the tabulated evidence being formulated by the use of two-way and in some cases multi-way cross-tabulations. For the most part, because of the large amount of data available and to avoid the danger of searching for spurious relationships, a regime of hypothesis formulation, based for the most part on the historical discussion, and hypothesis testing has been followed.

As a prelude to the analysis of the data gathered in the surveys, it should be pointed out that the postal questionnaires were mailed in Summer 1979, only shortly after the general election of May 1979 which brought a new Conservative Government into power. Since then the economic recession has deepened and severe constraints have been placed on Local Authorities activities. Thus there may be a slight discrepancy between the views expressed by Local Authorities in Summer 1979 and those expressed in the case studies carried out in Spring 1981. In order therefore, to pave the way for the analysis of Local Government policy and attitudes to garden provision there follows a short description of current Central Government attitudes and a brief discussion of the changes which have been effected since the original mail-out of questionnaires in Summer 1979.

References

1. Forbes J (Ed) - Studies in Social Science and Planning, 1974, Scottish Academic Press
2. Woodford G et al - DoE Research Report No 6, The Value of Standards for the External Residential Environment, 1976, DoE

3.3 CENTRAL GOVERNMENT POLICY

The Conservative Government, which came to power in May 1979, has largely continued to support traditional Conservative housing policies. Private enterprise building for sale has been encouraged and public sector council house building actively discouraged. However, the monetarist policies adopted by Central Government in order to combat inflation, have required large reductions in public expenditure and have hit council house building particularly hard, producing a much greater reduction in new house building than might otherwise have been expected of a Conservative Government. For example, Central Government concern over Local Authority expenditure produced, in October 1980, a moratorium on all subsidies for council house building. This action has served to reduce dramatically the number of completions of Local Authority dwellings over the whole country (see Table 3.3).

Table 3.3: Permanent Dwellings started - England and Wales

		<u>Public Sector</u>	<u>Private Sector</u>
1979	1st quarter	13977	20514
	2nd quarter	21898	35407
	3rd quarter	19474	36817
	4th quarter	18219	36053
1980	1st quarter	13642	21660
	2nd quarter	14218	26511
	3rd quarter	13114	20986
	4th quarter	8387	18590
1981	1st quarter	5736	22904

Source: DoE - Housing and Construction Statistics, March quarter 1981
Part 1, HMSO pp 3-4

Indeed, house building generally has suffered from the effects of the economic recession. In the private sector too, completions can be seen from Table 3.3, to have dropped since 1979, especially during the peak building period of the two mid-year quarters. Nevertheless the

private sector has received more encouragement than has the public sector. This preference is particularly reflected in two Central Government circulars.

Circular 9/80, Land for Private Housebuilding expresses Government concern at the acute shortage of land for housebuilding in some parts of the country, and stresses the importance of a five years' future supply of land being available in all areas. It also urges Local Planning Authorities to consult housebuilders regularly in order to assess the industry's requirements in respect of suitable sites, the provision of infrastructure, and to discuss the state of the market.

Circular 22/80, Development Control - Policy and Practice, can also be regarded as a stimulus to the private builder. The greater part of the circular deals with the removal of unnecessary controls and a streamlining of development control procedure in order to speed up decision-making. However, an appendix on Planning Permission for Private Sector House-Building is of particular relevance to our analysis. This section of the circular seeks to facilitate the granting of planning permission for private housebuilding projects by the removal of Local Authorities' rights to control several aspects of detailed design. The advice merits quotation in full:

"But functional requirements within a development are for the most part a matter for the developers and their customers. Such matters would include provision of garages, internal space standards (whether Parker Morris or other) and sizes of private gardens. In making provision for open space and in considering the location of houses on plots and their relationship to each other, local planning authorities should not attempt to prescribe rigid formulae." (1)

Such detailed advice illustrating Central Government's attitude towards private sector house building was presaged by the Secretary of State for the Environment in his address to the RTPI Summer School at York University, shortly after taking office. The relaxation of controls

suggested in the circulars are thus part of a wider policy aimed at the streamlining of the planning system into an "efficient, responsive and speedy" mechanism . (2) However the implications of this policy and the above statement in particular, for the control of development in general, and for control of private garden size in particular, are possibly far-reaching. Circular 22/80 virtually removes the right of Local Authorities to control the details of a development, allowing them only to say whether housing should be allowed on a particular site or not. Generally, the recommendations of this circular had been awaited with trepidation by the planning profession. Planning newspaper, for example, had carried the headline

"Anything can go circular due soon"

in July 1980 (3) and in the following issue suggested that the then draft circular;

"...would seriously undermine the planning system's ability to control development and implement strategic policies." (4)

As the discussion in 3.4 shows, such fears have been partly justified by the experience of certain Authorities since the circular was issued.

Two further elements of recent Government policy merit discussion. Both appear in Circular 22/80. The first concerns residential densities:

"The Government's general policy is to encourage more intensive development in appropriate locations in order to preserve the countryside and protect better quality agricultural land." (5)

Here we see the resurgence of a policy, which though never completely forgotten during the period of the Labour Governments, of 1964-70 and 1974-79, had been the hallmark of previous Conservative Governments, and which in the 1950s had been instrumental in promoting the trend towards high-density housing and reducing garden space, especially in the public sector. Circular 22/80 stresses that:

"...the bulk of future development must take place by re-building within existing towns." (6)

However the cutback in public sector housing starts, allied to the traditional Conservative antipathy to public sector housing, suggests that future building "within existing towns" will necessarily be undertaken by the private sector. The reluctance of private builders to build for sale on inner city sites in the past, because of the problem of high land values, suggests that the resulting development may well necessarily be at unsociably high densities, and probably poorly provided with private gardens. Thus unless the problem of high inner area land values is tackled, either by Central Government legislation, or by Local Authority initiative as in the case of the inner city private development in Liverpool (see 2.6), we may witness a further rush of high density housing provision in our cities.

Secondly circular 22/80 states:

"The Secretaries of State attach particular importance to the provision of low cost starter homes which may only be able to be built at higher than conventional densities." (7)

This advice reflects the escalating cost of new housing, which in turn derives largely from the increasing cost of land for house building. During the mid-1970s (1976-78) house prices rose at approximately the same rate as disposable income with mortgage repayments representing about a 15% share of first time buyers' disposable income. However, from mid-1978 house prices increased more rapidly and by 1979 mortgage repayments claimed over 19% of disposable income for first time buyers. (8) It is likely therefore that concern that such a trend might restrict the availability of owner-occupied housing for first time buyers is a motivating force behind advice to allow higher density starter homes. The implications of such advice however are potentially serious. Firstly the licence to increase

densities could lead to a reduction in standards of privacy and garden size and indeed might even lead to the type of low-rise high-density housing which was common in the public sector in the late 1960s and early 1970s, where there was insufficient space around buildings to allow for private gardens, and so communal areas had to suffice.

Secondly the small internal size of such starter homes would no doubt in time force a large number of applications for extensions, and with limited external space within the curtilage, problems of loss of privacy and daylight and loss of garden space might also arise.

In the public sector, Central Government has altered the system of cost control over Local Authority housing development and abolished both the mandatory use of Parker Morris standards and the cost yardstick. (9) The reception given to these moves has been mixed. On the one hand the abolition of Parker Morris standards is seen as a dangerous exercise in cost-cutting. On the other hand the standards themselves were often criticised as inappropriate and needlessly expensive. Since the Parker Morris guidance on gardens was limited to one generalised and misleading statement, without any size recommendations, the abandonment of Parker Morris standards has no great relevance to our immediate concerns.* The implications of the alterations to the subsidy system are also unclear at present. The housing cost yardstick was heavily criticised as being too restrictive on design and as an encouragement to the raising^c of residential densities to socially undesirable levels. However there is every reason to suspect that a

* For details of professional reaction to the abolition of Parker Morris standards see Kilroy B "After Parker Morris" in Architects Journal, 12 November 1980 and Levitt D "Guarded Response to Parker Morris Demise" in Architects Journal, 6 February 1980.

Government which has shown itself to be so cost-conscious is unlikely to sanction a more generous system of financing Local Authority housing to replace the yardstick. The replacement system which came into force on 1 April 1981 is as yet not clearly defined and at the time of writing there is no information available as to exactly how it is determined. The system is intended to relate cost to estimated market value, thus allowing greater local freedom and flexibility in differing circumstances. For the moment it remains an enigma which, as Planner News reported;

"...in theory could greatly reduce the time and effort spent by local authorities and DoE in meeting the previous criteria for approval. But this may be at the expense of adequate standards and wider social objectives." (10)

It is not unlikely that one feature of the residential environment which could suffer under the new system of financing council housing could be the private garden. The new system attempts to organise the design and costing of Local Authority housing on lines similar to those employed in the private sector, where it is clear that the pressures for densities to increase and gardens to become smaller are growing. (See 3.5) Council house gardens in the 1970s it is true, have not generally been large, since the yardstick has often been interpreted as demanding densities of around 19 dwellings per acre, but in all probability the new system will not allow any increase in garden size, and may indeed reduce the average plot even further in future.

To sum up, the Government can be seen to have mounted a strong attack on council house provision by its cuts in expenditure, and to have made an attempt at easing the restrictions on private housing development. The implications of this action for garden provision are twofold. On the one hand, the overall level of garden provision might be expected to rise as a result, but the relaxation of restrictions on

private builders may also produce a reduction in garden sizes, plus a general reduction in the quality of design of both dwellings and gardens. A detailed discussion of specific cases is contained in 3.5. The reduction in council house building will not produce an overall reduction in the number of dwellings with gardens, although there are other strong social arguments against reducing the public rented sector. The main product of these Central Government policies so far has been a storm of criticism from the professional planning press, suggesting that a free for all by private developers, largely released from the shackles of Local Government control, will result. Thus we must now turn to the attitudes of individual Authorities and consider what is actually happening, in order to gain a clearer picture of the likely future of the private garden.

References

1. DoE - Circular 22/80 Development Control - Policy and Practice, 1980, HMSO, Annex A, para 14.
2. Heseltine M - Secretary of States' Address to the RTPI Summer School, 1979, York University, in Report of Proceedings of the Town and Country Planning Summer School, RTPI, p 25.
3. Planning, 25 July 1980, No 378, p 1.
4. Planning, 1 August 1980, No 379, p 7.
5. DoE, 1980, op cit, Annex A, para 12.
6. Ibid, Annex A, para 16.
7. Ibid, Annex A, para 12.
8. Nationwide Building Society - Housing Trends: Second Quarter, 1979, Nationwide Building Society, p 5.
9. DoE - Circular 7/81, Local Authority Housing Project Control, HMSO.
10. Planner News, May 1981, p 9.

3.4 CURRENT LOCAL AUTHORITY POLICIES

i) The Respondents

Before looking in detail at the specific attitudes towards gardens of the Local Authorities in the survey, it is necessary to explain the differences in type and circumstances of the Local Authorities who responded. The relevant data on population size and political structure for the sample Authorities are given in tables 3.4 and 3.5 below and as with all other subsequent tabulations, the data refers to the survey period of late 1979. The population table is split between Authorities with populations smaller than 100,000 and those greater than 100,000. This distinction is based on Goffin's work (1) which established that Authorities with a population of over 100,000 tended to exercise much more autonomy in their relations with Central Government concerning housing than Authorities of under 100,000 population.

Table 3.4: Population Size of the Sample Districts

	Less than 100,000		More than 100,000	
	N	%	N	%
Metropolitan District	1	6	16	94
Shire District	21	81	5	19
London Borough	0	0	21	100
Large City	0	0	8	100
New Town	6	67	3	33

As expected, table 3.4 shows that almost all the Metropolitan District Authorities who responded to the questionnaire, along with all of the London Boroughs and Large Cities (which by definition have populations over 200,000) had populations of over

100,000. Conversely most of the Shire Districts and New Towns fell into the under 100,000 population category.

In terms of political control, apart from the Shire Districts where 27% of Authorities were controlled by minor parties including Liberals, Independents and others, control was divided between Conservative and Labour.

Table 3.5: Political Control in the Sample Districts

	Con		Lib		Lab		Ind		Other		Not Applicable	
	N	%	N	%	N	%	N	%	N	%	N	%
Metropolitan District	6	35	0	0	11	65	0	0	0	0	0	0
Shire District	12	46	1	4	6	23	4	15	2	8	0	0
London Borough	11	52	0	0	9	43	0	0	1	5	0	0
Large City	2	25	0	0	6	75	0	0	0	0	0	0
New Town	1	11	0	0	0	0	0	0	0	0	8	89

Table 3.5 shows that Labour held the majority of Metropolitan Districts and Large Cities, and Conservatives the majority of London Boroughs and Shire Districts.

ii) Residential Design Policies

Given this basic matrix of population, political control and Authority type, an attempt was made to find whether the varying circumstances of Authorities have any effect on the type of policies operated in relation to residential design. For example, the incidence of operation of design standards such as those for controlling density, sunlight/daylight and visual privacy were examined for each Authority type in terms of the controlling political party and in terms of population. Table 3.6 is an example of this analysis.

Table 3.6: Authority Types Which Operate Density Standards
Controlling for Political Structure

	Con		Lab	
	N	%	N	%
Metropolitan District	1	6	6	35
Shire District	5	19	3	11
London Borough	10	47	8	38
Large City	1	12	2	25
New Towns	N/A		N/A	

For a full tabulation of the data in this analysis see Appendix II. As the full run of tables shows, certain inter-Authority differences were apparent from the survey. Differences in the frequency of operation of standards were observed between Authority types, as for example between Metropolitan and Shire Districts, but these differences were by no means consistent over the range of variables analysed. (See Table 3.11) However if we categorise Authorities solely by population size rather than by type, and then examine the frequency of operation of standards, marked differences are apparent. Table 3.7 illustrates this analysis.

Table 3.7: Percentages of Local Authorities operating particular
Standards in Relation to the External Residential
Environment Categorised by Population Size

OPERATING	Less than 100,000	Greater than 100,000
density standards	43	64
visual privacy standards	39	66
sunlight/daylight standards	35	70

As table 3.7 shows, the larger Authorities, in terms of population, are much more likely to have documented standards in relation to

the three design factors density, visual privacy and sunlight/daylight. Size of population in itself, however, may not be the sole determining factor. Table I in Appendix II shows that gross population density tends to increase with district population size and the pressure of high population density seems a more plausible explanation for the increased operation of standards than population size alone. In a situation of high district densities the Local Authority is likely to find itself suffering from a lack of available land for development, and from the associated problem of high land prices. As table 3.8 shows, this does appear to be the case in many Authorities with high populations.

Table 3.8: Local Authorities with Land Availability Problems

	<u>Under 100,000 pop</u>				<u>Over 100,000 pop</u>			
	<u>Problem</u>		<u>No Problem</u>		<u>Problem</u>		<u>No Problem</u>	
	N	%	N	%	N	%	N	%
Metropolitan District	1	100	0	0	7	47	8	53
Shire District	5	24	16	76	2	40	3	60
London Borough	-	-	-	-	18	86	3	14
Large City	-	-	-	-	5	62	3	37
New Town	2	33	4	66	0	0	3	100

In contrast to the Shire Districts, where low gross population densities are the norm and land availability for residential development is cited as a problem only in 24% of Authority Districts, 86% of London Boroughs, where high gross population densities are common, claim that residential land availability is a problem. A possible explanation for the increased incidence of the use of standards in high-population areas runs as follows. Where population is high and land is short, the best means of ensuring compact development in the future is to formulate

spacing standards as a guide to developers. These standards are not generous, and although ostensibly formulated as devices to promote good design, and intended as minimum standards, they are in fact treated as maxima by developers. Thus the use of standards in the situation where there is pressure on land ensures a high degree of land saving and produces housing built to very minimal standards indeed. In this situation we could of course only expect tiny gardens or perhaps none at all.

There is however an alternative explanation of the high incidence of standards for the external residential environment in some Authorities. This rests on the distinction in political control between Authorities. As table 3.9 shows, Labour-controlled Local Authorities are more likely to operate standards than are Conservative-controlled Districts.

Table 3.9: Percentages of Local Authorities operating particular standards in relation to the external residential environment, categorised by political control

Operating	Conservative Controlled %	Labour Controlled %
density standards	55	66
visual privacy standards	45	86
sunlight/daylight standards	55	79

A possible explanation for this distinction between Authorities lies in the traditional views of housing held by both parties and especially in their basic philosophies. The Conservative party tend on the whole to follow a policy of non-intervention and seek to encourage private developers by allowing them as free a hand as possible. The recent publication of Circular 22/80 which removes many of the controls over detailed design in private

housing development, illustrates this point. Labour on the other hand tend to be more interventionist and seek to place greater restrictions on private industry in general, and the private sector building industry in particular.

In fact the explanation for the differential use of standards to control the external residential environment in Local Authorities probably falls between the two hypotheses set out above. Most of the large Authorities (over 100,000 population) are controlled by Labour and most of the Shire Districts by Conservatives, and so it is not easy to see which of the two factors, size or political control, is the decisive one. It is most likely however that the two are mutually supportive, and thus their coincidence in many Authorities is mutually reinforcing. Finer analysis of the available data tends to support this hypothesis. (See table 3.10)

Table 3.10: Correlation of the operation of specific standards analysed for population size and political control

	(correlation coefficient)			
	<u>Less than 100,000</u>		<u>Greater than 100,000</u>	
	Con	Lab	Con	Lab
Probability of operation of:				
density standards	.375	.4	.6	.68
privacy standards	.42	.8	.52	.7
sunlight/daylight standards	.42	1	.6	.83

Table 3.10 shows that the probability of operation of standards in Labour controlled Authorities is always higher, for all sizes of Authority, than in those controlled by the Conservatives. Equally the probability factors are generally higher in the large

Authorities than in the small, thus indicating that the effect of population (and density and land availability) is important.

The incidence of the use of specific standards in relation to the three design criteria of density, privacy and sunlight/daylight, categorised by Authority type, is illustrated in table 3.11.

Table 3.11*: Proportion of Local Authorities operating specific standards in relation to:-

	<u>Specific Standard</u>		<u>No Standard</u>		<u>Question Ignored</u>	
	N	%	N	%	N	%
<u>1. Net Residential Density</u>						
Metropolitan District	7	41	10	59	-	-
Shire District	9	35	16	61	1	4
London Borough	19	90	1	5	1	5
Large City	3	37	3	37	2	25
New Town	8	89	1	11	-	-
<u>2. Privacy</u>						
Metropolitan District	13	76	4	24	-	-
Shire District	8	31	15	58	3	11
London Borough	14	67	6	28	1	4
Large City	6	75	2	25	-	-
New Town	5	56	4	44	-	-
<u>3. Sunlight/Daylight</u>						
Metropolitan District	10	59	7	41	-	-
Shire District	7	27	14	54	5	19
London Borough	19	90	1	5	1	5
Large City	7	87	1	13	-	-
New Town	4	44	4	44	1	11

* The information contained in this table and a discussion of its implications appears in Kellett J & Hill R, "Policy and Control in Residential Design", Town and Country Planning, April 1981, p111-112

Again the evidence contained in table 3.11 points to the higher incidence of standards being operated in areas of high population and urban development. London Boroughs and Metropolitan Districts show a generally higher incidence of standards than do Shire Districts. The Large Cities too tend to resemble the Metropolitan Districts and London Boroughs more closely than they do their fellow Shire Districts, thus reflecting their high population densities and land availability problems as well as their predominantly Labour control.

From the continuity and longevity of Central Government advice concerning the three design criteria, we might have expected an overwhelming proportion of Local Authorities to operate standards relating to density, privacy and sunlight/daylight. However, table 3.11 suggests that the incidence of operation of standards, whilst it varies between Authority types and between the different design criteria, does not exceed 60% on average.

iii) The Incidence of Private Garden Standards

The estimate of 60% of Authorities operating standards in relation to density, privacy and sunlight/daylight is especially significant if we consider the incidence of operation of standards specifically referring to private gardens. Table 3.12 shows the incidence of operation of private garden space standards amongst Local Authorities.

Table 3.12: Proportions of Local Authorities operating specific standards in relation to private garden space

	<u>Specific Standard</u>		<u>No Standard</u>		<u>Question Ignored</u>	
	N	%	N	%	N	%
Metropolitan District	12	71	5	29	-	-
Shire District	9	35	17	65	-	-
London Borough	13	62	7	33	1	5
Large City	3	37	4	50	-	12
New Town	4	44	4	44	-	11

It is apparent from the table that the pattern of utilisation of standards for private garden space provision closely follows the pattern of standards for density etc, in that the Metropolitan Districts and London Boroughs show a markedly higher incidence of operation of standards. The Shire Districts again show the lowest incidence of utilisation of standards. The Large Cities, in this case, however, tend to follow the lead of the Shire Districts, rather than the more urban Metropolitan Districts and London Boroughs, since a majority do not claim to operate specific standards in relation to garden provision. As with the other standards (except for density) the New Towns are fairly evenly split between those who do operate garden standards and those who do not. Overall the absolute incidence of garden standards is not so high as for the other factors. This situation was to be expected from the historical analysis of policy and is probably a reflection of two factors. Firstly, the private garden has generally been shown not to have been regarded as a key issue in residential design and may not be regarded as such today. Secondly gardens do not seem to be

regarded as so amenable to the formulation of standards as other more regularly used planning tools such as density, privacy and sunlight/daylight. These three factors have been shown in Section Two to have a long and consistent pedigree in the development of planning policy and the planning profession , in contrast to the private garden which has fluctuated in popularity as a desirable feature of good design over the years. Thus we would expect the incidence of garden standards to be less than the incidence of these other standards. Nevertheless the incidence of garden standards is surprisingly high. 70% of Metropolitan District Authorities, for example, claim to operate specific policies in relation to gardens, and overall the incidence of private garden standards, at 50% of all responding Authorities is not a great deal lower than the 60% of Authorities who operate other types of standards. Thus whilst the original hypothesis, based on the historical analysis, that standards such as density, privacy and sunlight/daylight would be more usually formulated and applied by Local Authorities, than would standards relating to private garden size, is shown to be valid, the difference between the frequency of formulation of the two sets of standards is perhaps not so great as was originally expected.

The hypothesis that overall, few Authorities operate any specific standards or policies in relation to private gardens must also be regarded as invalid on the basis of the evidence in table 3.12. In relation to this latter point it was expected that those Authorities which had taken the trouble of producing formal design guides for residential development would include

recommendations regarding private gardens in these. In the light of the comment made by the Design Guidance Survey (1978) (2), that design guides were "being widely prepared" it also seemed reasonable to expect that the survey would encounter a large number of such guides. However, as table 3.13 shows, the latter was not the case. Very few Authorities employed design guides and amongst those who did, garden standards were not universal.

Table 3.13: Frequency of inclusion of private garden space standards in formal design guides

Of 3 METROPOLITAN DISTRICTS operating or subject to a design guide, all 3 include private garden space standards.

Of 4 SHIRE DISTRICTS operating or subject to a design guide, 2 include private garden space standards.

No LONDON BOROUGHs operate or are subject to design guides.

One LARGE CITY operates a design guide which includes private garden space standards.

Of 2 NEW TOWNS operating or subject to a design guide, 1 includes private garden space standards.

In general we can conclude that some attention is being paid to the private garden by Local Authority planning departments, and, whilst the garden cannot be regarded as such a key issue in the residential design process as, for example, is privacy, it is by no means ignored. This inference is perhaps unexpected in the light of the historical evidence which shows great fluctuations in the level of interest in the private garden on the part of both professionals and politicians, and a general lack of response to the available evidence of consumer demand or need. However, in the wake of a period during the late 1950s and 1960s when high densities in the public sector were fashionable, and the private sector was largely left to its own devices as far

detailed design was concerned, it is perhaps not so surprising that the garden should now be regaining some of its former prominence. It would also be reassuring to suppose that the research into consumer preferences carried out during the 1960s and 1970s (and outlined in 1.2 - 1.4) was now being applied in practical design terms. Such an optimistic viewpoint is, however, not easy to defend. A detailed examination of the type of standards recommended by Local Authorities may help to clarify this point.

iv) Garden Size Standards

The actual recommendations of Local Authorities regarding garden size are diverse and based on various different criteria. For example, several Local Authorities specify rear plot lengths of 35 feet. In these cases it is very likely that their garden standard is a direct result of the application of the seventy foot privacy rule, which normally results in rear gardens of 35 feet in length. In such cases a recommended area of garden is often not specified and therefore the eventual garden size is dependent on the frontage width chosen. Alternative criteria involve an allowance of space for habitable room or bedspace, or a scale of garden sizes graded in accordance with type and size of household. For example, the London Borough of Redbridge specifies 20 metres² of garden space per habitable room. Leicester City Council specifies 15 metres² of garden per bed-space, whilst Peterborough Development Corporation grades garden sizes as follows:

One bed dwelling	40 metres ²	garden space
Two bed dwelling	60	" " "
Three bed dwelling	75	" " "
Larger dwellings	100	" " "

Milton Keynes operates a particularly innovative method of specifying garden sizes by operating a policy based on differing percentages of dwellings having different garden sizes within estates. Thus it specifies that on each estate there should be;

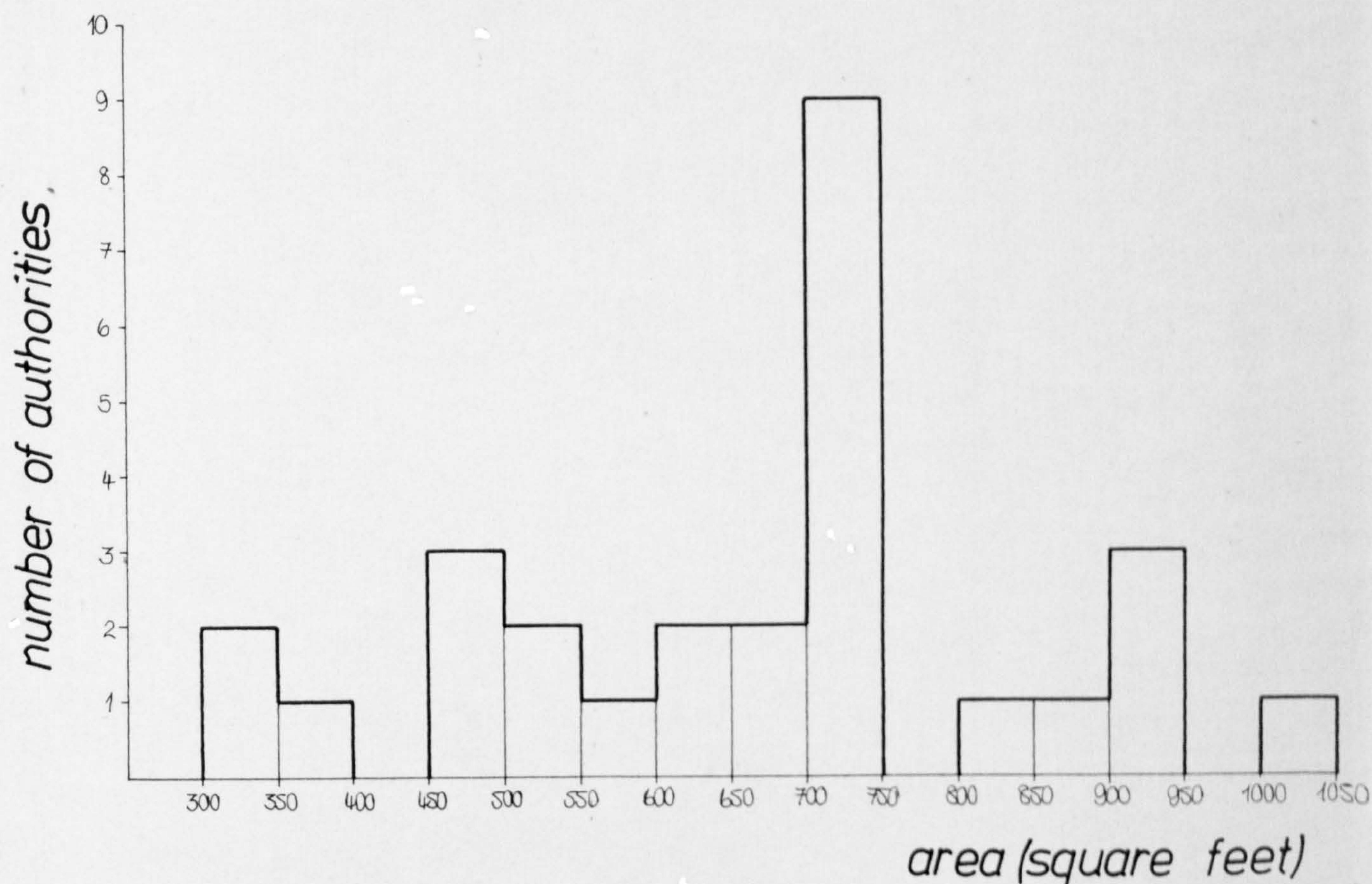
10%	of dwellings with gardens in the range	0-50 metres ²
15%	" " " " " " "	50-75 "
30%	" " " " " " "	75-100 "
30%	" " " " " " "	100-120 "
15%	" " " " " " "	120 plus "

It should be noted that the Milton Keynes system produces some private garden space with every house.

Not all the Authorities who claim to operate specific standards are so precise in their definition of garden sizes, however. Lambeth Borough for example states that it "requires adequate provision of open space and/or garden space" and resists "reductions in existing space". Similarly the London Borough of Merton requires "adequate and suitable garden area". Yet other District Authorities set unequivocal standards, such as Fenland District Council which demands 1000 feet² of garden per dwelling, and Dudley Metropolitan District Council which states that dwellings must be provided with 700 feet² of private garden space. This space must be usable and the policy, it is claimed, will be strictly adhered to.

The examples given above, and the full list given in Appendix III, show a great diversity of standards and methods of implementation. The distribution of rear garden sizes which the various recommendations produce is shown in figure 3.1 and in the light of this information we can draw several conclusions. Firstly, the hypothesis that due to the lack of a recognised national standard, such as exists for privacy, on a private garden size, we could expect a wide diversity of standards based on differing criteria, is shown to be valid. Apart from showing a remarkable diversity in the basis for the calculation of desirable garden area, the survey also shows a great diversity in the resulting size recommendations. Recommended garden sizes range from under 350 feet² to over 1000 feet² for dwellings with four or more bedspaces. As figure 3.1 shows, the distribution of Authorities recommending various garden sizes is fairly even, apart from a group of eight Authorities operating garden size recommendations within the range 700-750 feet². It has already been concluded in Section One, on the basis of several other research projects which have investigated the question of optimum garden size, that the functional minimum size for rear gardens is 500 feet² and the optimum size is 800-1000 feet². Secondly therefore, the range of recommended sizes shown in figure 3.1 suggests that in general the survey and research evidence which is available on gardens has not proved useful, in that it had not been widely applied to the formulation of Local Authority garden standards. The high incidence of Authorities operating standards within the range 700-750 feet² may suggest some cognisance of the research evidence, but it is equally likely that this particular plot size is a reflection of

Fig 3.1 NUMBERS OF AUTHORITIES
RECOMMENDING VARIOUS GARDEN
AREAS



NB Where authorities suggest a range of garden sizes, the standard employed relates to dwellings with four or more bedspaces.

the widespread use of the 70 foot rule as a basis for garden standards. A garden length of 35 feet multiplied by a fairly typical frontage width of 20 feet results in a garden area in the range 700-750 feet². Thus whilst we can document a degree of interest in gardens which falls not far short of the interest shown in other design factors such as density and privacy, we must conclude that the standards recommended are usually formulated on an ad hoc basis, and are not the product of rigorous research into consumer needs.

A further point of interest arose from perusal of the survey returns, although this was not amenable to statistical analysis. None of the responding Authorities specifically mentioned standards in relation to front gardens, although it is equally true that the standards which they documented need not necessarily apply to rear gardens only. Nevertheless the frequency of mention of the value of private areas and the need for screening of the garden to attain visual privacy does suggest that the garden standards presented usually refer to the rear plot. Anglesey District Council was the one exception, in that it specifically mentioned favouring open plan front gardens. Whilst none of the other responding Authorities professed any opinion on open plan fronts, interviews with planners in the five case study Local Authorities elicited a unanimous disapproval of open plan front gardens on the grounds that occupiers do not like them, and that maintenance is a major problem.

v) Housing Design and Density

Table 3.14: Recommendations for open space provision in new Local Authority housing

	<u>All Gardens</u>		<u>Gardens/ Communal</u>		<u>Mostly Communal</u>		<u>All Communal</u>	
	N	%	N	%	N	%	N	%
Metropolitan District	9	53	10	59	2	12	0	0
Shire District	12	46	19	73	1	4	2	8
London Borough	8	38	8	38	1	5	1	5
Large City	4	50	5	62	0	0	0	0
New Town	7	78	5	55	0	0	0	0

NB The rows in some cases total more than 100% since respondents tended to specify more than one policy even though they were not invited to do so.

Table 3.14 shows the type of open space provision planned for new Local Authority housing by the various Local Authority types. For example, 53% of Metropolitan Authorities planned to have gardens with every new dwelling. As the footnote to the table indicates, in several cases respondents filled in more than one policy option. Thus it is not possible to determine an exact representation of likely trends from the table.

However, the distribution of the various policies does indicate a preference for garden provision either as the sole type of space provision or in conjunction with some communal open space provision. The number of Authorities planning to provide mostly communal open space, or all communal open space within the residential area, is minimal. The few Authorities which specify all communal space qualify this recommendation by the fact that they are building mostly OAP bungalows, with which they feel communal space is preferable for maintenance reasons.

Apart from the maintenance cost argument it is also possible that Local Authorities are responding to tenant preferences by providing a greater proportion of private gardens in their rented housing. Again, in Redborough DC it was suggested that gardens tend to be better looked after than communal open space and are generally valued by tenants. This suggestion represents a reversal of the type of arguments in favour of communal open space employed in the 1960s, when lack of interest in private gardens was often cited as a reason for providing public open space as an alternative. In neither case does there appear to be any quantitative survey evidence to support these arguments, and thus it seems that they are secondary to the major issues and are merely used as supports for the conventional wisdom of the day.

The type of dwellings being constructed by Local Authorities also has some bearing on the type of open space provision made. As table 3.15 shows, there is a pronounced trend towards low-rise accommodation; only two London Boroughs, for example, went so far as to indicate a readiness to contemplate building high flats.* Most Local Authorities were building traditional house types at densities ranging from 12 to 18 dwellings per acre, and a substantial proportion claimed to be building low rise (2 storey) flats, though in many instances these were in fact intended as old persons' accommodation rather than for general use. Maisonettes appeared to be very unpopular outside London

* The response to question 4 suggested that these Boroughs would not normally wish to build high flats (5 or more storeys) but would be prepared to do so in extreme circumstances, such as on very restricted or costly sites.

and the New Towns where a small proportion of Authorities were constructing this dwelling type.

Table 3.15: Proportion of Local Authorities building specific dwelling types

	<u>Houses 12-15 dpa</u>		<u>Houses 15+ dpa</u>		<u>Maisonettes</u>		<u>Low rise flats</u>		<u>High Flats</u>	
	N	%	N	%	N	%	N	%	N	%
Metropolitan	11	65	9	53	0	0	7	41	0	0
Shire District	20	77	8	31	4	15	16	62	0	0
London Borough	2	10	10	48	7	33	13	62	2	9
Large City	2	25	6	75	0	0	2	25	0	0
New Town	6	67	5	56	2	22	6	67	0	0

NB The rows in some cases total more than 100% since respondents tended to signify more than one policy option, even though they were not invited to do so.

The dwelling types favoured by Local Authorities, as indicated in table 3.15, are to a great extent a reflection of the subsidy system operating at the time of the survey, in that high flats are not favoured, and traditional houses make up the bulk of new dwelling types. There is also a markedly high proportion of Local Authorities building specialist old persons' accommodation, either in the form of low rise flats (usually 2 storeys) or bungalows. 24 out of the 81 responding Authorities (30%) specifically stated that they were building such accommodation. This activity is no doubt the result of Central Government prompting to build old persons accommodation. DoE Circular 24/78 introduced a higher subsidy for old persons accommodation to reinforce this advice. (3) The high incidence of traditional cottage types is no doubt a contributory factor in the high level of private garden provision suggested in table 3.14. During the 1960s when

high rise flats and maisonettes formed a substantial proportion of all new Local Authority dwellings, communal open space was the most straightforward design solution and it was therefore favoured. Similarly, the present official preference for low-rise houses and bungalows coupled with the burden of maintenance costs for public open space has prompted Local Authorities to adopt the simplest design solution, the private garden.

Over the last sixty years there has been a noticeable though intermittent, tendency in housing design, for public sector schemes to differ substantially from those in the private sector in many respects, including garden provision. The effect of these basic differences has often been detrimental to council housing. Nevitt, for example notes that:

"Any casual passerby could identify the public and the private houses and associated the former with the worst part of the town and the latter with the best." (4)

The survey therefore sought to identify whether different design criteria were operated in respect of the public and private sectors. The answer is a resounding "no". Only one Authority claimed to operate standards in respect of public sector housing which were different from those operated in the private sector. Indeed, this result tallies with the historical evidence, which shows that basic environmental standards such as sunlight/daylight angles, privacy distances etc, have always been applied to both sectors in the same way. Nevertheless, marked differences are apparent in the built forms and currently, although Local Authorities are building mostly low-rise single-family accommodation, it is relatively easy to identify to which sector a dwelling belongs. One fundamental distinction

appears to be the different densities employed. The yardstick system of financing Local Authority housing which operated until April 1981 was generally regarded as favouring development in the range 17-19 dpa. This level of density, coupled with the frequent use of separate pedestrian/vehicle circulation systems, grouped parking and the provision of play spaces and incidental amenity areas, meant that garden sizes tended to be very small - 500 feet² or less. However, whilst development densities in the private sector have increased above the traditional level of 12 dpa, during the 1970s the more traditional layout of roads and pavements, with all intervening space in private ownership, has produced more spacious looking layouts and larger gardens than in the public sector. It appears therefore that it is differences in approach to the design process and different financial constraints, rather than different design criteria or environmental standards, which have in the past produced, and continue to produce, such apparently diverse developments.

The differences between public and private sector housing are not necessarily so marked in all areas. Some Authorities for example, build Local Authority dwellings at densities in the range 12-15 dpa in a similar fashion to private sector developers. Furthermore, a significant number of Authorities which responded to the questionnaire claimed to build housing in the density range 12-15 dpa whilst at the same time maintaining that the cost yardstick was not adequate to allow them to cover all costs in doing so. This point is illustrated by the following information:

Of 11 METROPOLITAN DISTRICTS building dwellings at 12-15 dpa none thought the yardstick adequate.

Of 20 SHIRE DISTRICTS building dwellings at 12-15 dpa, 10 thought the yardstick adequate.

Of 2 LONDON BOROUGHs building dwellings at 12-15 dpa none thought the yardstick adequate.

Of 2 LARGE CITIES building dwellings at 12-15 dpa none thought the yardstick adequate.

Of 6 NEW TOWNS building dwellings at 12-15 dpa, 4 thought the yardstick adequate.

In all cases the above figures show a marked discrepancy between the number of Authorities actually building at the relatively low (for Local Authority housing) density of 12-15 dpa and the number who thought the subsidy adequate to allow them to do so. This discrepancy between opinion and action implies that whilst Central Government strongly influences Local Authority house building policies its control is by no means total. If the influence of the subsidy system were all-pervasive, then Authorities would build only the type of dwellings which the yardstick encouraged.

The responses of particular Authority types are also significant. 65% of responding Metropolitan Districts for example, claimed to be building dwellings at 12-15 dpa. This high proportion is perhaps indicative of a movement amongst these large and powerful districts to avoid bowing to Central Government dictates, given that only 13% of them thought the yardstick adequate to build at 12-15 dpa (see table 3.16). 77% of Shire Districts claimed to be building dwellings at 12-15 dpa and 50% of these found the yardstick adequate to allow development at 12-15 dpa, in marked contrast to the Metropolitan Authorities.

Table 3.16: Proportion of Local Authorities indicating that the
cost yardstick is adequate to allow development at
12-15 dpa

	<u>Yardstick adequate</u>		<u>Yardstick not adequate</u>	
	N	%	N	%
Metropolitan District	2	13	14	88
Shire District	11	44	14	56
London Borough	0	0	12	100
Large City	0	0	5	100
New Town	4	50	4	50

NB Non-response to this question has produced several missing values notably amongst London Boroughs (9) and Large Cities (3), also Metropolitan (1), Shire (1) and New Towns (1).

The small number of London Boroughs building houses at this density is perhaps a reflection of the extreme situation, where land prices, labour and materials' costs are all high.*

Nevertheless it is difficult to explain the apparent difference in attitude between predominantly urban and predominantly rural Authorities. The purchase price of land was not included in the yardstick calculation. Whilst labour and materials' costs vary between regions, a regional element was built into the yardstick which was adequate to cover most eventualities. Two possible explanations of the varying attitude of urban and rural Authorities to the adequacy of the yardstick to allow development

* It should be noted that the response from the direct question concerning land values (Questionnaire No 2, Question 7 - See Appendix IV) did not indicate that high land values had a significant effect on density. However, this may be because respondents tend to regard the cost yardstick as the crucial factor in the determination of density, and do not question the issue any further. Results of Question 6, concerning the effect of the cost yardstick, show a strikingly different pattern from the replies to Question 7. See table 3.16 above.

at 12-15 dpa are as follows. Firstly many more urban than rural Authorities employ direct works departments rather than contractors. The lack of free competition for tenders in those urban Authorities may therefore increase building costs over those in rural Authorities. Secondly the standard of design in urban areas may be higher. The use of architectural features such as monopitched roofs, set-backs and staggers which are often seen in recent council house designs are all expensive. (5) It may be that the incidence of these in urban areas is higher than in rural areas. No evidence is available from the survey either to confirm or deny these possible explanations. Suffice to say that this is an area of investigation which deserves further study, but since it is tangential to the theme of this particular thesis, a definitive answer will have to be left to future research.

The available evidence points towards a degree of independence from Central Government amongst certain Local Authorities in their housing policies, despite the pressures which tend to enforce conformity. Since absolute control is not the case, it follows that there must be other influences on the design of Local Authority housing apart from strict financial dictates. The historical analysis has suggested that public sector housing design is the product of the interaction of the effects of Government subsidy and the particular ideals subscribed to by the professional housing designers employed in Central and Local Government. The results of the survey therefore, whilst they cannot explicitly prove this hypothesis, tend to support it. Coupled with the evidence of the case

studies (see 3.5) the survey does suggest that the views of local politicians and professionals are important in the determination of design, and the question of garden provision is of course one relevant issue.

vi) Attitudes to Public and Private Space Provision

The provision of open space, the standards employed, and the type of space employed, whether public or private for instance, are issues which are almost always locally determined. Furthermore the provision of public open space in the form of playing fields and parks has long been an issue central to the practice of planning in Local Authorities*, and as such can claim a place alongside privacy and sunlight/daylight standards as a long established and widely recognised planning tool. Thus we might expect from the available historical evidence, that Local Authorities would be more likely to operate standards relating to the provision of public than private open space. A comparison of table 3.17 with table 3.12 does indeed show that more Local Authorities operate standards in relation to public than to private open space.

* The original standard, which is still used by many Local Authorities today was devised by the National Playing Fields Association in 1925 - for details see Patmore J A - Land and Leisure 1970, David and Charles, p 84ff

Table 3.17: Proportions of Local Authorities operating specific standards in relation to public open space provision

	<u>Specific Standard</u>		<u>No Standard</u>		<u>Question Ignored</u>	
	N	%	N	%	N	%
Metropolitan District	12	71	5	29	0	0
Shire District	17	65	9	35	0	0
London Borough	17	81	2	10	2	10
Large City	6	75	2	25	0	0
New Town	8	89	1	11	0	0

In all cases, apart from the Metropolitan Districts where the incidence of Authorities operating standards for public and private space is the same, more Authorities have standards for the provision of public than private space. Table 3.17 does not necessarily imply however that Local Authorities tend to regard the provision of communal open space as an alternative to private garden space. The public open space referred to in the table covers the whole range of such provision, from playing fields and parks to incidental amenity areas within the residential environment. The comparison of tables 3.12 and 3.17 does imply however that public space provision is generally an issue which appears to be more central to the planning process since it is regarded as very important by a consistently high proportion of Local Authorities, whilst private open space is not regarded as so important. The distinction possibly lies in the scale of analysis of space needs. Parks and playing fields are subjects to which numbers of users and access criteria can be applied, and about which the available research is probably well known. (6)

Private gardens however are complex in terms of function

and it is less easy to analyse and document quantifiable standards for them. Furthermore, local planning officers seem to be less familiar with the available research. For example, amongst the planning officers interviewed in the case study surveys most thought that around 75% of households would desire a garden, but none could cite any supporting evidence for this figure beyond a 'professional guess'. It was significant too that many thought that conditions in their local area produced a higher than average demand because the local people were exceptionally keen on gardening. Again they could produce no evidence to support this contention. The questionnaire survey elicited several comments from diverse Authority types which suggested that private garden space and communal space were regarded as interchangeable. For example Trafford MDC operates a garden standard of 80 metres² adjacent to the house or 18 metres² of communal space adjacent to the house. The London borough of Hillingdon demands 60 metres² private gardens or 35 metres² communal space per dwelling.* Since it has been demonstrated in 1.4 that public and private space are rarely interchangeable, this evidence adds further support to the view that the research into the private garden is neither well known nor understood. The incidence of standards which specify greater amounts of garden provision for family housing than for other types* also suggests a lack of cognisance of the research. It has been shown in 1.4 that adults generally attach great importance to the use of the private garden as childrens' play. Observation surveys have shown however that other uses such as drying washing and adult leisure are probably of similar

* For further examples see Appendix III

importance (see table 1.6) in terms of frequency of use.

Consequently those Authorities which specify that family housing should be provided with larger gardens than non-family housing do so on the basis of a popular misconception rather than as a result of application of the available research evidence.

Finally, the shortage of space provision generally, and the lack of private garden space in particular, is demonstrated by the evidence provided by the questionnaire survey concerning demand for allotments.

Table 3.18: Authorities with waiting lists for allotments

	<u>Waiting List</u>		<u>No waiting List</u>		<u>Question Ignored</u>	
	N	%	N	%	N	%
Metropolitan District	13	76	1	6	3	18
Shire District	20	77	2	8	4	15
London Borough	19	90	0	0	2	10
Large City	8	100	0	0	0	0
New Town	5	56	0	0	4	44

As table 3.18 shows, in all cases except the New Towns where there was a high non-response rate, over 75% of Authorities claimed that a waiting list for allotments existed in their area. Such a uniformly high level must indicate a basic deficiency in the amount and distribution of open space provision generally. Firstly, the high demand for allotments suggests that the emphasis placed upon public open space provision by planners, is misplaced. Given the total amount of land available for open space provision it might be better to provide less communal space and more private garden space. Secondly it suggests that the research evidence which points out the fallacy in providing

large gardens only in family housing is correct. (See 1.5)

Allotments are demanded by adults who require them for cultivation; they fulfil no purpose whatsoever as extra play space. Thus extra garden space is required by many types of household, and not just those with young children.

vii) Summary

In summary, the following points emerge from the analysis of the survey returns:

- a) Attitudes to residential design, including garden provision vary between Local Authority types. For example Authorities with high population densities and those controlled by Labour are most likely to have formulated residential design standards, including standards for garden provision.
- b) Whilst the private garden cannot be regarded as a key issue in the residential design process, it is by no means ignored by Local Authorities.
- c) Open plan front gardens no longer seem popular with designers in either the public or private sector.
- d) The garden size standards recommended by Local Authorities vary a great deal and generally show little evidence of any basis in social research.
- e) Whilst Central Government strongly influences Local Authority housing designs, its degree of control is by no means total.
- f) Whilst the housing designs of Local Authority and private estates may be distinctive, the standards employed in the design process (ie those standards amenable to planning control) are almost always the same.

- g) Old persons accommodation (bungalows and flats) forms the bulk of new Local Authority dwellings.
- h) Local Authorities generally appear to pay more attention to the provision of public than private open space.
- i) There has been a shift away from communal open space provision towards private garden provision in Local Authority housing.
- j) Generally there appears to be a shortage of private open space within residential areas.

References

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3. DoE - Circular 24/78 The Housing Cost Yardstick HMSO
4. Nevitt A A - "Issues in Housing" in Hall P and Davies R (Eds) Issues in Urban Society, 1978, Penguin, p 203
5. See Davies, Belfield and Everest - "The Cost of Housing" in Architects Journal 8 February 1978
6. See for example Patmore J A - Land and Leisure, 1972, Penguin, esp Chapters 2 and 3 p 26 ff and Sports Council - Annual Reports.

3.5 LOCAL AUTHORITY CASE STUDIES

The diverse nature of standards relating to private gardens amongst Local Authority planning departments has already been illustrated in 3.4. (See also Appendix III) Differences in policy, however, do not fully reveal the contrasting approaches of Local Authorities to the issues of open space provision in general, and of garden provision in particular, and to the control of these factors in new development. In order to examine more closely the diversity of approach to these issues amongst Local Authorities, five district Authorities in the Sheffield area were visited and their policies and method of operation of development control in relation to private gardens were investigated in some depth. The choice of these Authorities is discussed in 3.2. A discussion of the results of the investigations into Local Authority practice in each of the chosen districts follows below.

i) Labshire District Council

No formal policies in relation to private gardens are operated by Labshire District Council, though it was suggested by interviewees that there was a presumption that all new residential development would include private gardens with each dwelling. Generally a mixture of public and private open space is considered desirable in both public and private housing developments, and a formal policy on the provision of communal play areas in developments of over 25 dwellings is employed. Criticism was made of several older private sector developments where the builders had left odd corners of land as 'public open space', which served no useful purpose and was a cost burden on the Local Authority maintenance department. Now, it was suggested,

the development control department were sufficiently aware of developers' practices to be able to avoid this type of piecemeal space provision, and insist that communal open space provision be a useful size and easily maintainable.

It was noted that private developers in the district were tending to opt for narrow fronted house types (usually semis or detached) in order to increase site densities in response to increased land costs. The implications of this tendency for garden provision are narrower plot widths without any compensating increase in plot lengths, and therefore an overall reduction in garden area. An example of a scheme where the developer attempted to push this process beyond the bounds of what was acceptable to Labshire DC is discussed below. This particular case is interesting because it introduces several points which recur in the later case studies, where circumstances are similar but where the reactions of the Local Authority do not always follow the same pattern.

Early in 1978 a regional building firm applied for planning permission to erect 77 dwelling houses on a greenfield site near an existing and already substantially expanded village. The County Council had recently adopted a set of revised road standards which, inter alia, allowed reduced standards in terms of carriageway widths and footpath provision, and increased numbers of access drives on to estate roads and culs-de-sac. However, these lower standards had not been accepted by Labshire DC, which had decided to maintain its previous road standards. The applicants mistakenly assumed that Labshire DC had adopted the reduced standards, and designed their layout accordingly.

The reduced road standards were used as an opportunity to cram houses on to the site, the resultant density being around 20 dpa. Inevitably the private garden plots were tiny and the standard of privacy between opposing dwellings questionable. As a general principle, the effect of an apparently unrelated environmental standard - in this case concerning roads - on garden size is worth noting, since it demonstrates the complex interrelationship of design elements in the residential layout. The proposed development was refused planning permission by Labshire DC. However the form of this refusal was in two parts. On the one hand, a very detailed explanation of the deficiencies of the layout was sent to the applicant as an informal guide to assist him in drawing up plans for a resubmission of the scheme. This is quoted at length below:

"...the overall layout is cramped, as indicated by innumerable small infringements on the standards as laid down in the Development Control Scheme for 'Labshire', which is intended to ensure an absolute minimum acceptable standard, but does not preclude any further criticism with respect to consideration of the overall quality of environment within the residential area so created. (sic) Although the new highway standards adopted by 'Labshire' enable a higher density, they are intended to provide imaginative and new solutions to create more attractive spaces within the residential layout.

Use of standard house types within the new road standards has created problems namely

- i) overlooking loss of privacy
- ii) undersized gardens
- iii) reduced building lines.

By the use of more ingenious house designs, many problems could be overcome. For example too much use of bungalows produces a reduction in the amenity open space around the dwelling. Therefore increased use of two storey dwellings would alleviate pressure on space between dwellings.

Since no public open space has yet been required for play areas etc within the site, the private open space will be expected to be generous to compensate." (1)

On the other hand the official reason for refusal was given as follows:

"The proposed layout fails to achieve a safe and convenient layout for residents visitors and servicing by inadequate provision of car parking and servicing areas, manoeuvring space, and inadequate facilities for children's play resulting in conditions likely to be contrary to the best interests of pedestrian and vehicle safety within the development generally." (2)

It is interesting that apart from a non-specific reference to children's play space, the official refusal does not mention the inadequate private garden provision in this development, although the informal reasons given, highlight it as a major cause of concern. This dichotomy between the two levels of explanation given by the Council was explained as follows. Whereas the informal reasons explained the Council's overall view of the inadequacy of the proposals, the official refusal was carefully worded so as to reflect this inadequacy in relation to a specific set of standards, in this case pertaining to roads, which had not been met. In this way, it was felt, because the Council had a formal published policy, concerning roads, which it could cite verbatim and compare with the proposed standards, the likelihood of a successful appeal against the refusal of planning permission was very remote. Refusal on grounds which were not so clear cut, for example on the grounds of inadequate garden size, in the absence of a formal standard relating to gardens, was not considered wise because of the implications which such a refusal held for a possible decision on appeal. Furthermore the increased freedom over detailed design granted to the developer by circular 22/80 further inhibited the Authority from specifying a large number of detailed criticisms.

Following refusal of the proposals the developer submitted a revised version of the layout which now conformed to the required road standards, and as a result proposed the erection of 75 instead of 77 dwelling houses. However, in most other respects the proposals remained just as inadequate and poorly designed as before. The garden sizes were very small and the plot shapes rendered many inadequate in terms of privacy. The development also now contained several small areas of largely useless and potentially expensive open space designated as play areas. Given, however, that the developer had eradicated the deficiencies for which the original proposal had officially been rejected, Labshire DC had little option but to grant planning permission.

The poor quality of design in the example described above is not untypical. Several other Local Authorities described similar, poorly designed development proposals. The use of standard house types* is one contributory factor towards low design quality, since these tend to produce awkward plot shapes and small gardens. Secondly, the preoccupation of the developer with fitting as many units onto the site as possible in order to maximise his profit is illustrated by the high density (around

* Many developers employ standard house types to facilitate the design process. Each firm tends to offer a range of perhaps half a dozen dwellings, which are utilised on sites in many different locations. The dwellings themselves are designed by architects, in contrast to the layouts, which are designed by technicians, employing a predetermined mix of the standard house types. The results of this design method are often obviously awkward layouts, lacking in character and amenity, as a result of the rigidity imposed by the standard house types. For an example of standard house types see the sales publicity leaflets of most of the large building companies, particularly Wimpey Homes - George Wimpey and Co Ltd, Hammersmith Grove, London W6 7EN

20 dpa) of the proposal and by the many minor infringements of generally accepted design criteria such as the seventy foot rule. Perhaps the root of the problem lies in the fact that few developers building this type of scheme, employ qualified architects to design their layouts, preferring to leave the task to technicians and draughtsmen. In such circumstances clear guidance from the planning Authority concerning the acceptability of specific features would have been a great help in the satisfactory resolution of the design.

In 3.4 it has been shown that more Authorities employ specific standards in relation to tried and tested planning 'tools' such as privacy and density, than in respect of private gardens (see tables 3.11 and 3.12). The reluctance of Labshire DC to criticise this development proposal on any grounds other than those which were related to quantifiable Local Authority standards is a graphic example of the result of reliance on these tried and tested tools.

The attitude and policies of Labshire DC in relation to the provision of council housing are perhaps not entirely typical of current Local Authority practice. As a strong Labour controlled Authority the Council is committed to the provision of council housing. This situation in itself is of course not unusual, but the degree of control exercised by the politicians over the details of Local Authority housing design in Labshire is not typical of other Local Authorities. The members of Labshire DC have adopted a policy which is aimed at the production of public sector housing which in appearance and layout is as similar as possible to designs in the private sector. Ultimately the

intention is that the two sectors should be visually indistinguishable. The stigma attached to council housing, which in part arises from the often radically distinctive designs which have on occasion in the past characterised public sector housing, is seen as the main reason for pursuing this policy. As a result therefore, the intention of the Council is to provide private gardens with all new Local Authority dwellings.

As a general aim the policies of Labshire DC in relation to the design and layout of public sector housing appear laudable, especially when the experience of housing designs in the public sector, which have radically differed from the traditional English house and garden, is borne in mind. (See Section Two, especially 2.3 and 2.5.) If we also have regard to the extremely low standard of design acceptable in the private sector, as illustrated above, however, we may view this policy with more scepticism. As an indication of future trends in public sector housing, especially in the light of the most recent Central Government advice concerning the arrangements for funding public sector housing projects*, the example of Labshire DC is perhaps significant. If this is indeed the case we can therefore expect almost universal private garden provision in future public sector housing, but the size of plots and their quality of design in terms of shape and orientation may be questionable.

* DoE Circular 7/81, Local Authority Housing Project Control, 1981 HMSO has indicated Central Government's intention to allow Local Authorities greater freedom in the design and cost of dwellings. Subsidy however, will be based on a comparison of the cost of the development and the value of the dwellings on the private market. Thus the expected result is a trend towards designs similar to those employed in the private sector.

ii) Muddleham District Council

The Labour controlled, metropolitan district of Muddleham is similar to Labshire in its lack of standards relating to private gardens. It was suggested by officers of the Council however, that all new residential development in both the public and the private sector would be expected to include some private garden space. As in the case of Labshire, Muddleham DC was keen to see a mixture of public and private open space in new housing developments, but was less concerned than Labshire about the implications for maintenance which this policy held. Officers stated that the Council would be willing to adopt and maintain virtually any such public space provision, though they made no mention of any analysis of the present or potential future financial burden which such a policy might impose.

In its dealings with one application by a private developer to erect 54 dwellings on a greenfield site, Muddleham DC displayed many traits similar to those already discussed in relation to Labshire. In 1980 outline planning permission for the erection of dwelling houses on a site near an existing suburb was granted. In early 1981 detailed application for permission to erect 54 dwellings on this site was refused planning permission on the grounds that;

"...the very high density together with the layout of house types would have produced a very ungainly and unsatisfactory appearance."

In fact, examination of the proposals shows a very poorly designed scheme. Pressure for a high density (around 23 dpa) was a major cause of problems, including overlooking and small and inadequately designed gardens. Standard house types

again contributed to the poor quality of the design. A particular object of criticism was the utilisation of short terraces with garages projecting from the front of each dwelling. These caused overshadowing, poor visual amenity, and reduced front gardens almost to nothing.

As a result of the decision an appeal was lodged, and on the advice of the planning Authority, a revised scheme was submitted for approval. The density of the revised scheme was lower, ten dwellings having been removed to reduce it to 19 dpa. Some of the offending terraced dwellings were among those removed, but overall the quality of the scheme remained extremely low. In particular the garden sizes were inadequate and plot shape and orientation in some cases were poor. The quality of the design was a reflection of the developer's desire to incur as little financial cost as possible and a result of both inadequate consultation during the design process, and the lack of positive Local Authority standards which could be used as guidance. For fear of the original proposal being accepted on appeal, the officers of the Council recommended approval of the revised scheme. A condition was attached to this recommendation however, waiving the permitted development (PD) rights to extensions on the terraced dwellings, in order to avoid an undesirable loss of visual amenity and to avoid loss of private garden space. Thus, just as in the case of Labshire DC, a generally unacceptable development was recommended for approval.

Similarly, concern at the possibility of the Local Authority losing an appeal was a major factor in the determination of the second application, and in this instance was seen to arise from

the recent publication of Circular 22/80 (see 3.3) which reduces the degree of intervention in detailed design expected of Local Authorities. Furthermore, as in the case of Labshire, the inadequacy of the private gardens in the proposal was a cause for concern but not one which was specifically mentioned as a reason for refusal. The final point concerning PD rights however, illustrates a further principle to be borne in mind when considering gardens. The size of garden provided must be adequate to allow sufficient useful garden space to remain (see 1.4) after a portion of it has been used to allow an extension to the dwelling. In respect of this particular criterion the efforts of the Muddleham DC planners are perhaps worthy of some praise. As an example of planning control however, this case does not shed any glory on the officers involved.* Perhaps a fundamental criticism which should be levelled at the decisions made in this case is that too much concern was shown with visual amenity and not enough with the actual functions of the constituent parts of the design, in particular the private gardens. In this respect the evidence of Sections One and Two concerning the function of the garden and policy-makers' attitudes to the garden, is reinforced. The experience of Muddleham DC in this case strongly suggests that so long as some kind of garden space appears on the plan the size, shape, and potential for privacy of the plot are considered beyond, or unworthy of, consideration.

* The members of Muddleham DC ought however to be commended for their decision not to take their officers' advice. The second scheme went the way of the first and was not approved. The basis of this decision however, had nothing to do with the proposed garden plans.

Owing to the cutbacks in spending on housing there was very little activity in the public sector in Muddlehem DC. The few dwellings which were under construction or planned by the Council were old peoples' bungalows and sheltered accommodation, most of it in the form of two-storey flats. In general it was suggested that any residential development in the public sector would incorporate universal private garden provision, but no recommendations were made concerning size, shape or orientation of plots.

iii) Hitham District Council

The example of Hitham DC is particularly interesting because, whilst the problems facing the Local Authority are similar to those already discussed in relation to Labshire and Middleham DCs, the approach to solving these problems in Hitham District was markedly different. The first obvious difference in approach which was noted is the existence of firm policies in relation to many aspects of residential design, including private gardens. The relevant standards are set out as follows:

- a) Private gardens should be provided adjacent to every family dwelling normally at the rear. For non-family dwellings an equivalent area of well landscaped and properly maintained communal open space close to the dwellings may also be acceptable.
- b) Minimum private garden areas are:
 - i) 100 square metres for traditional detached and semi-detached family dwellings.
 - ii) 60 square metres in other cases of family housing, particularly those dwellings having narrow plot widths, and where the garage is sited outside the private garden area.
 - iii) 72 square metres in cases of family housing other than (i) above, particularly those dwellings having narrow plot widths together with the garage situated within the private garden area.

iv) 30 square metres in non family housing subject to the provisions of paragraph a) above. (3)

These standards reveal a presumption in favour of gardens, and an attempt at specifying detailed size requirements. However, they also suggest an implicit belief in the interchangeability of public and private open space and a belief in the need for family households to have larger gardens than others. As Section One has shown, both these ideas are refuted by the research evidence available on gardens. Thus these standards demonstrate a lack of cognisance of all the available evidence and the utilisation of the classic assumptions of professionals concerning childrens' play space.

Despite the manifest shortcomings of the garden standards employed by Hitham DC, the existence of these standards, allied to a vigorous policy of negotiation with private developers prior to applications going to committee, did seem to produce an atmosphere which was more conducive to good design. In relation to the private garden in particular, the methods of control operated by Hitham DC generally produce larger gardens than in Labshire or Muddleham DCs.

An application by a national building company to erect an estate of 95 dwelling houses for first time buyers near an existing village illustrates both the similarity of the application to those already discussed in relation to Labshire and Muddléham DCs, and the different approach to dealing with the application adopted by Hitham DC. The application in question was, as in the other cases cited, poorly designed as a result of the usual factors, namely, the use of standard house types, the desire to maximise profit by maximising density, and the

employment of inadequately skilled design staff. The resultant house plots were far too small to allow adequate private rear gardens. Rather than allow this proposal to go to planning committee, be refused and generate a possible appeal, the Local Authority entered into negotiation with the developer using the threat of refusal to effect changes in the proposed layout. The existence of documented policies relating to garden sizes was particularly pertinent to this process since these could be cited by the Local Authority as minima, with the threat of refusal of planning permission if these standards were not met. Equally, the suggestion that the proposals would not gain approval on appeal if they contravened a documented Local Authority standard in relation to gardens, carried much more weight than a vague criticism of inadequate garden provision. A better standard of design was achieved in this case by Hitham DC persuading the developer to employ local architects who were both better trained than the original designers, and more sympathetic to the local environment. The standard house types were in some cases substantially modified and the amount of road building reduced. The resultant reduction in the density of the development produced longer rear gardens with greater privacy.

In both of the former cases cited, lack of negotiation, lack of specific standards and fear of losing an appeal prompted acceptance of poor designs. In the case of Hitham DC none of these factors had any effect. Whilst it is perhaps facile to suggest that the use of standards alone can produce better layouts, there is no doubt that their use, coupled with a vigorous and design-conscious staff, can be of great importance

in producing a good standard of environment and adequate garden provision in the face of conflicting pressures, especially if proposals are examined and discussed early in the design process. Even given the drawbacks of standards as a method of control (see 3.2), it seems reasonable to suggest that an Authority which possesses a set of documented standards in relation to private garden provision is more likely to achieve a good standard of residential layout design and adequate garden sizes than an Authority which does not define its desired criteria,

Turning from this specific example to more general trends in private housebuilding, the officers interviewed at Hitham DC were unanimous in their opinion that since the early 1970's there had been a trend towards smaller plot sizes and smaller housing units. This trend, above all, was considered to be a reflection of increasing land values. One result had been an inevitable reduction in garden size. Whilst it was considered impossible for the Local Authority to combat such a powerful market influence, the effects could be mitigated by good design and attention to detail. The formulation of standards for private gardens was just one element in this process.

Two further sets of circumstances relating to private gardens were mentioned. Firstly, households in the district had frequently made applications for permission to extend their gardens. These applications usually occurred in older residential areas where the developers had left odd corners as 'public open space'. Since these are often unsuitable and frequently neglected they tend to be viewed by neighbours as ideal areas for inclusion within their gardens. Hitham DC usually allowed such extensions,

though some had been refused on the grounds that the inclusion of extra space within the residential curtilage could adversely affect the amenity of the area by increasing the area of land within the residential curtilage and thus available for Permitted Development rights. In relation to this latter point, the capacity of private gardens to accommodate extensions to the dwelling was the second area where concern was expressed. Extensions had been refused by Hitham DC in the past on the grounds that too little rear garden space would remain, thus spoiling the amenity of the dwelling. As a general principle therefore it is possible to argue that gardens capable of accommodating extensions to the dwelling and yet still remaining viable for the functions outlined in Section One (see 1.4), should always be provided.

Whilst Hitham DC generally attempts to keep the amount of incidental open space in residential developments down to a minimum in order to reduce maintenance costs, it demands the provision of play areas on larger developments (100 dwellings plus). It was suggested that communal play areas were more important in Local Authority housing than on private estates since they tended to be more intensively used. No distinct policies are applicable to public sector housing however, and the presumption is that all dwellings in the public sector will be provided with private gardens should any be built. In the spring of 1981 however, there was no public sector building activity, apart from the construction of a small number of OAP bungalows taking place in Hitham District.

iv) Toryshire District Council

The information provided by the general questionnaire survey of Local Authority policies suggests that Conservative controlled Authorities in areas of low population and low population density are the least likely group of Authorities to operate standards in relation to private gardens. (See table 3.10.) This conclusion holds good in the case of Toryshire DC. The district is predominantly rural, approximately half of it being included in the Peak District National Park. The housing in the area is therefore almost all of the traditional single-family type and is provided with gardens. It is generally presumed that future housing developments in the area will be provided with garden space, if only because the pressures to increase densities are not so high in the district. Whereas private sector developments in the districts already considered were often built at around 20 dpa, in Toryshire the density of new development is considerably lower. Nevertheless, over recent years pressure to increase densities has been growing even in this rural area.

For example, a large scheme by a national building firm on the outskirts of an existing village was planned at 10 dpa in 1976. The first phase of the development was built according to plan, but the density of the second phase was raised to 14 dpa. Whilst planning permission was granted, the planning Authority expressed reservations about the design of this phase, showing particular concern about possible difficulty in selling the houses. Residents in the first, lower-density phase, also complained at the increased density of phase two, believing that

the value of their properties would be affected. In fact phase two, which consisted of over a hundred units, sold well. By 1979 the developer was ready to begin on phase three. However, the builder ran into problems and the District Council bought up the remainder of the site for council housing. The plans for the Local Authority housing showed a further increase in density to 18 dpa in order to meet the requirements of the cost yardstick. Residents in both earlier phases objected to this increase in density. Central Government restriction on Local Authority building have subsequently held up this phase however, and it now looks as though the site will be developed with OAP bungalows and a sheltered housing scheme.

Currently very little Local Authority housing is under construction in Toryshire District, and in recent years activity in the public sector has concentrated on OAP dwellings. Private gardens are provided even with these latter dwellings since the provision of communal open space is considered both costly in terms of maintenance, and unpopular with residents. Indeed, one example of Local Authority housing was cited where the residents had asked for the removal of an area of public open space since it was a focus for dumping and vandalism. The use of open plan front gardens too is considered to have been shown to be a failure and proposals for these are generally turned down now.

Some concern was expressed concerning extensions to dwellings, and as in Hitham DC, it was suggested that gardens should be designed which are large enough to remain viable after an extension of the dwelling has taken place. An illustration of

the effects of providing gardens which are too small to perform their required functions adequately was also cited. In this case a developer had built 20 terraced dwellings at a net density of 14 dpa. He sold three of the dwellings but then encountered difficulty in selling the rest. Torsythshire DC therefore bought the remaining houses and let them to families with children. However, the garden space proved inadequate as playspace for the large number of children distributed amongst the dwellings. In this case it is possible to criticise the housing management team for allocating large families to all of these dwellings. Nevertheless, since Local Authorities generally have no control over the eventual choice of occupier in private housing the fundamental point that gardens of adequate size to cover all eventualities (ie extensions, large families, keen gardeners etc) should always be provided, appears sound.

v) Redborough District Council

Little information was available concerning the policies operated in relation to private sector housing development in Redborough DC. However, it was clear that, whilst no specific garden size standards were recommended, there was a presumption that most new dwellings would be provided with private gardens, and that the seventy foot privacy rule, which was applied to all new developments, would ensure a minimum rear garden length of thirty five feet.

Redborough DC is committed to a large programme of council house building, and though this has been severely curtailed by Central Government cutbacks, schemes are still being designed in

order that they may be speedily implemented when finance becomes available. Examination of the design briefs for these Local Authority housing developments reveals several traits which have already been commented upon in relation to other Local Authorities. Firstly, apart from a number of low-rise (two storey) flats in sheltered OAP schemes and OAP bungalows, all future planned Local Authority housing is in the form of traditional single-family two-storey houses. Furthermore, terraces are no longer favoured so all planned houses are detached or, more frequently, semi-detached. This latter characteristic results from the Council's desire to bring the designs of their rented property more in line with current designs in the private sector. It is felt by the Council that a better quality of life is provided by residence in semi-detached rather than in terraced housing.

The second trend common to other Local Authorities, namely the provision of private gardens with every dwelling, can be seen as part of this expressed concern for the quality of life in Local Authority housing. There is no doubt however that the cost of maintaining areas of public open space within the residential area is at least as important a factor in determining universal garden provision, as concern for the welfare of tenants. In an interview with an architect in the housing department the prohibitive cost of maintaining public amenity space was stressed. Therefore a policy of amalgamating all small areas of amenity space into one or two larger areas in or adjacent to all new developments will be pursued. By the same token, all that land which formerly might have been employed as incidental open space within the housing area will, wherever possible, be incorporated

as private garden space. The general design brief states:-

To a large extent the size and disposition of gardens is determined by the type of layout and by the requirements for adequate privacy distances between dwellings and between the dwellings and public spaces. For example, the protective function of a front garden is more important for houses fronting to a conventional access street than for those fronting to a mews court. The design of the houses and disposition of windows also has a bearing on this.

Large front gardens and side gardens should be avoided; rear gardens to family houses should be sufficiently large and sufficiently private so that normal domestic activities can be carried out without detriment to the visual environment.

A minimum size of 50 square metres is recommended for rear gardens in family housing.

A minimum of 25 square metres is recommended for rear gardens in elderly persons housing. (4)

This policy indicates a degree of consideration of the need for private gardens, but again displays similar fallacies to those already outlined in respect of other Local Authority garden policies, notably in the case of Hitham DC. For example, there is an explicit assumption that families require larger gardens than other households. Equally, emphasis is placed on the affects on visual amenity of gardens and garden functions, rather than on the suitability of gardens themselves to accommodate domestic functions. Nevertheless, the recommended minimum family garden size (50 square metres), which was admitted to be more the product of guesswork than anything else, is not an unreasonable standard if it is treated in practice as a minimum.

References

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4 April 1978
2. Labshire DC - official reason for refusal of the above application,
4 April 1978
3. Hitham DC - Draft Development Control Policies, 1980, p 18
4. Redborough DC - General Housing Brief: External Spaces, 1981,
(unpubl), p 12

3.6 PROFESSIONAL ATTITUDES IN THE CASE STUDY AUTHORITIES

Whilst politicians in both Central and Local Government are responsible for policy formation, there is little doubt that the influence of professionals, whilst it varies between Local Authorities, is a factor which must receive some consideration.* (1) The views of professionals are in turn a reflection of their education and experience. Interviews with staff in the case study Authorities sought to examine their views and attitudes particularly in relation to private garden provision. Again the information obtained, whilst it can in no way be subject to statistical analysis, serves a useful purpose as illustrative of particular opinions and practices amongst the Local Authority staff who are responsible for processing applications for residential development and for designing Local Authority housing.

The first point which was made abundantly clear by all the interviewees was the importance which they attached to private garden provision. They all, as individuals, thought that the provision of a garden was extremely important, but when questioned about the ideal density of development which they would like to see, often argued in favour of a range of densities, the upper third or quarter of which could not possibly accommodate private gardens. Several suggested that a mix of housing, including flats, was necessary in order to provide visual interest, and one in order to "stop society stagnating". None mentioned land saving as a fundamental justification for high urban densities, but most mentioned the higher cost of land in inner city areas as a reason for pursuing higher densities there than in the

* The alacrity with which the political initiative towards higher densities in the 1950s was welcomed by professionals partially illustrates this point. For details see 2.5.

suburbs. A particular case in point was Redborough DC, where a high-ranking planner suggested inner area densities in the range 80-90 ppa and suburban densities of 40-60 ppa for Local Authority housing. The high cost of land was given as the reason for the higher density range. However, discussion with officers in the Housing Department of Redborough DC showed that Local Authority housing development planned for the inner areas is to be in the range 12-14 dpa (40-60 ppa). The cost of land was not regarded as a problem since the Local Authority already owns a plentiful supply of inner city land.

When questioned as to the function and value to the individual of the private garden, a range of opinions was expressed. A minority discussed the importance of the garden in terms of basic domestic functions, a few discussed the importance of the concept of personal territory and privacy, and a larger number mentioned the garden as a focus for recreational activities, for both adults and children. Many however, tended to use phrases such as "external living space" or "extension of the accommodation of the dwelling" or "flexible area for personal use", which avoid the problem of tabulating actual uses, and are dangerously close to being meaningless jargon. Whilst most of the points concerning garden value and function which have been covered in 1.4 were mentioned, no individual respondent showed a clear understanding of the full value of the garden, which must indicate a lack of consideration of gardens and a consequent lack of cognisance of the available research material. Whilst it is perhaps unreasonable to expect such a detailed level of analysis and articulation in the course of a relatively brief interview, the disparity between the ready acceptance of the garden as important, and the reluctance to

advocate a policy of universal or near universal garden provision, because of the existence of constraints which may or may not be real, is perturbing. The, by now, traditional view of the city as a series of concentric rings of density increasing towards the centre, as originally propounded in academic theory by Burgess (2) and in Government advice by the Marley Report (3) (see 2.3) is perhaps the root cause of this apparent contradiction between personal opinion and policy.

Two other areas of perception which were common to most of the respondents, but patently based on no empirical evidence, concerned professionals' opinions of the proportion of households desirous of private garden space, and the need for communal open space provision. In the former case all the respondents suggested that a very high proportion of all households would be desirous of private garden space with their dwelling. Opinions as to the actual percentage varied between 70 and 100%, the mode being 90%. Comparison with the estimate of demand made in 1.3, shows that these are very reasonable guesses. However, the majority of respondents also added that they considered their estimate reasonable only for their own area, where they considered demand to be abnormally high. Nationally, they argued, demand would be lower because other areas, variously located in "the South", "London" and "large urban areas", would register a much lower level of interest in gardens. The high level of local demand for gardens was variously ascribed to a "rural tradition" and a "tradition of gardening in Yorkshire". No evidence, beyond personal opinion, was cited in support of these claims.

In respect of communal open space provision a range of opinion was encountered. Some respondents favoured the provision of communal open space, childrens' play spaces and incidental amenity areas within the residential area, while others were sceptical of the value of such

provision. None considered that public and private open space were in any way interchangeable, an opinion which is in accord with the social research findings discussed in 1.4. However, several expressed the opinion that distinct types of open space provision were necessary in middle-class and working-class housing areas. It was suggested that working-class residents require some public open space provision, especially in the form of childrens' playspace, whereas in middle-class housing children tend to play in the private gardens and therefore communal space provision is not so important. As with professionals' opinions on density zoning and household demand for gardens, this view seems to reflect a narrow acceptance of the status quo, and a belief in the immutable nature of current policies.

The effect on design and density of the cost yardstick was another area which reflected a variety of opinion from different respondents. Several commented that the stringent cost controls of the yardstick were such that it was impossible to build below 18 dpa and stay within cost limits. Others were equally adamant that it was possible to develop at 12 dpa and stay within the yardstick, and cited the necessity to build at 18 dpa as a popular myth, mostly arising from the high cost of land and politicians' desires to be seen to be producing large numbers of dwellings. In fact the complexity of the yardstick system and the multitude of local factors affecting its application in each individual case make it impossible, within the limits of this study, to reach any conclusion as to the validity of either point of view.

The final area of questioning concerned standards, and in particular the value of standards relating to gardens. On the issue of standards as a whole, a variety of opinion was shown. Some were

enthusiastic supporters of the use of standards to control many aspects of residential development, commenting that standards served as useful design guidance material and as a quasi-legal support for the Local Authority when negotiating with developers. Others were equally convinced that standards were worthless. Several criticised specific standards as useless or unnecessary, particularly those relating to spacing for sunlight/daylight, arguing that the normal spacing requirements for privacy, almost always ensured adequate daylighting conditions. With regard to private gardens, few were in favour of standards and the majority argued that the seventy foot privacy rule is sufficient to provide adequate garden lengths. Even in Hitham DC, where garden standards were operated (and refer to preferred garden size by area), the planners who were interviewed discussed gardens in terms of plot length rather than area.

Generally design for privacy was considered of paramount importance, and the application of the seventy foot rule was extremely common (see table 3.11). None however discussed the implications for garden size of design for privacy utilising screening and single aspect housing, which might reduce the requirement for seventy feet between dwellings, and thus severely restrict the area available for gardens.

Whilst attitudes in relation to various factors differed therefore, the professionals interviewed generally seemed to regard the design and control process in a broadly similar fashion. The best illustration of this comment is the general professional perception of the garden as a feature of only minor importance in the design process, and the concentration of effort on factors such roads and privacy, despite the fact that all respondents initially claimed that the garden was of great importance to residents.

References

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3. Ministry of Health - Report of the Departmental Committee on Garden Cities and Satellite Towns, 1935, HMSO

3.7 CONCLUSIONS

Current Central Government policies suggest the continuance of the drive towards a nation of owner-occupiers, and major reductions in Local Authority house building. The net effect of these politices is likely to be an increase in the total level of garden provision in new housing. However the concentration of public sector resources on old persons dwellings, the encouragement of private builders to construct small units and the relaxation of detailed control over speculative builders' designs, suggest that the size of many of the gardens included with new housing is likely to decrease.

Furthermore past experience of the general failure of 'filtering' as a method of securing a satisfactory distribution of housing types and tenures suggests that the current policy of producing small dwellings and small gardens, especially in the public sector, may be disastrous. However sound the logic of 'filtering' appears, the low level of 'downward' residential mobility is likely to restrict the supply of dwellings with gardens large enough to accommodate families with children, in the public sector, just as it has always done in the past. Any unforeseen demographic change too, is likely to produce a severe mismatch between the size of households and the dwellings available to follow Osborn's suggestion that:

".....the normal family home should provide for the normal family at its peak..." (1)

Given the high unemployment which will probably be a lasting feature of our society, Government might also be advised to encourage larger gardens both as aids to cheaper food production and as foci for leisure activities.

The only really encouraging initiative of recent years in respect of gardens has been the beginnings of a movement to suburbanise the inner city, facilitated by the effective removal of the land cost problem by public intervention. Activity here has neatly sidestepped one of the major causes of flat building and promises a more balanced attitude to housing provision within the older urban area in future, should these initiatives be widely adopted.

The degree of control over house building exercised by Central Government over Local Government looks like remaining strong, though still allowing some room for local variations, depending on the nature of the Authority. Within Local Authorities the methods of control over new house building appear to be little changed from previous practice and show few signs of major changes. In particular the operation of standards in relation to privacy, sunlight/daylight and density is criticised, though the value of standards in principle is not questioned. The use of standards in relation to gardens has been found to be more widespread than expected, and is commended, though the actual specifications used are diverse and often unrealistic. Consequently it is suggested that the formulation of garden standards by Central Government and their publication in a Circular might be a wise policy.

The little information on demand for gardens which was available from Local Authorities supports the view that there is an unfulfilled demand for more garden provision. Whilst many professional planners seemed generally aware of the importance of the garden to the consumer, most held firmly entrenched opinions on the form of new development, and saw no major increase in either the level of garden provision or average garden size as likely. The influence amongst professionals of

the 'traditional' view of the city as a series of density rings, increasing towards the centre, was a particular obstacle in the path of increased garden provision. More encouraging however was the discovery that much of what was formerly zoned as communal open space will now tend to be included in private gardens for maintenance cost reasons. Active concern for the private garden amongst Local Authorities therefore showed some minor increase, as compared for example with the period 1955-1970, but in general gardens still do not seem to be accorded a central place in the design process, in either the public or the private sector.

NB For a detailed summary of the results of the analysis of the survey of Local Authority policies see 3.4 pp 319-320

CONCLUSIONS AND RECOMMENDATIONS

This study has shown that the private garden has a long history in England and Wales, mainly as a result of the longevity of the tradition of single-family dwellings. The traditional cottage dwelling form has repeatedly resisted attempts at removal and replacement by multi-storeyed forms. Thus the private garden too, survived the rigours of the industrial revolution, and at the end of the nineteenth century, received a tremendous boost as a result of the popular acclaim for Garden City/Suburb designs. As a result gardens have been considered valuable adjuncts to the dwelling by the vast majority of households during the twentieth century.

For most of the period under discussion Government policy has not treated the provision of private gardens as a central issue in the design of housing. Indeed in relation to private sector housing Central Government has been completely silent on this point for most of the period, though the mechanism of the market has ensured that the vast majority of dwellings for sale have been given private gardens. The increasing involvement of the State in housing provision has not been used as an opportunity to improve the level of garden provision. Indeed positive design advice in respect of gardens has declined over the period and financial encouragement for dwellings with gardens has fluctuated. Furthermore even during periods when Central Government design advice advocated high levels of garden provision, external pressures have variously served to reduce the actual level of garden provision in the public sector, thus illustrating the vulnerability of the garden to a variety of apparently unrelated factors such as financial cutbacks, land prices, agricultural land-saving, and the prevailing trends in architectural and planning practice.

The result of the continual shifts in housing policy which have occurred with each change of Government, has been a mismatch between the overall supply of dwellings with private gardens and the level of demand for them. So far Government does not appear to have recognised the existence of this anomaly, far less attempted to rectify it. Current housing policies suggest that the level of garden provision may actually rise in future, though the size of individual plots appears to be decreasing. This predicted rise in the level of provision is not the result of any conscious policy regarding gardens and is likely to be achieved at the expense of a sharp decline in the output of public sector housing generally.

This study has also highlighted the existence of several myths concerning private gardens which have had a powerful effect on garden provision and on planning policies generally over the years. Firstly it has been widely contended that since private gardens are major users of land within the residential area they should be restricted either in number or size because of the loss in food production which results from the loss of agricultural land when new housing development takes place. Ward and Best have demonstrated the inherent fallacy of this viewpoint. Secondly, it has been suggested that as the leisure time available to society increases the demand for private gardens decreases. Again this has been shown to be a fallacious assertion (see 1.4). Thirdly, there is a widely held belief that only families with small children require or desire gardens. Again this view has been proved erroneous. All these three factors have exercised a powerful influence on Central and Local Government planners and have devalued a great deal of the effort which has gone into the design of housing.

The major conclusion which results from this study is that a gap exists between the opinions of professionals and those of the public concerning the utility of gardens. Politicians too, of whatever political complexion must be regarded as inclining towards the professional stance. Broad objectives, such as land-saving, the definition of green belts, or the maintenance of inner-city rateable values, have all been responsible for the definition by politicians to professionals of specific planning goals, which have taken little account of gardens. Added to the imposition of these strategic constraints, professional practice has frequently compounded the problem by adopting solutions at the design stage which are not subject to research on consumer preferences and merely reflect prevailing opinion about what is 'best'; this definition often rests too heavily on aesthetic and visual, rather than functional grounds.

The existence of this gap is partly demonstrated by the disparity between supply of and demand* for gardens. In 1.3 it is estimated that the national supply of dwellings with gardens stands at around 75% of the total dwelling stock. The overall level of demand for gardens, however, stands about 10% higher, at between 80% and 90% of all households. The gap in perception is also demonstrated by the evidence on popular views on design and preferred garden size. The fact that many dwellings are provided with gardens which are not only below the optimum size of 800-1000 ft² as defined in 1.4, but also below the functional minimum size of 500 ft², points to a lack of interest and knowledge regarding gardens on the part of both designers and development controllers. Similarly, the poor shape and

*The expression 'demand', as used in this chapter, is intended to convey an amalgamation of demand, in the strict economic sense, and desire for gardens, which is estimated from the results of various social surveys. See 1.3 ii.

orientation of some gardens, as well as their lack of privacy, are indicative of a lack of concern for the fundamentals of garden design and suggest that the garden is very much a subsidiary issue in the layout design process.

There are thus two fundamental problems to be discussed and solved. Firstly, there is the quantitative issue of how to reduce the gap between supply and demand in order to ensure that a dwelling with a garden is normally available for every household which desires one in the future. Secondly, there is the qualitative problem of ensuring that all gardens attached to new housing meet the requirements set out in 1.4 and are thus adequate in size and design.

Before discussing the possible solutions to these two problems, certain qualifications must be made to their definitions. In respect of the quantitative aspect of garden provision, the search for a solution must, on the basis of the historical evidence presented in the thesis, concentrate on the public rented sector. This conclusion rests on the conclusion that garden provision amongst owner-occupiers is adequate to meet demand, and that whilst there is a marked shortfall in garden provision in the private rented sector, this sector is small and declining, and therefore, any action to alleviate the shortfall within it, whilst beneficial to those households involved, will have a minimal effect on the overall deficiency. As a result of both their form and location, however, a high proportion of Local Authority rented dwellings are without gardens, and since this sector accounts for around 30% of the total stock, action to ensure a better distribution and supply of gardens in future is best concentrated in this area. This conclusion, however, rests on the assumption that new building by Local

Authorities will continue to account for around a third of all new dwellings. In the light of recent action by Central Government in cutting expenditure on public sector house building, and encouraging new initiatives in the private sector, such as single person flats, as well as continuing support for housing associations in their development of specialised housing for the young, elderly and disabled, this assumption may not prove correct. (See 3.3) Central Government, in fact, appears to be shifting the responsibility for providing housing for those groups which traditionally do not have access to owner-occupation, away from Local Authorities and into the private sector. Recognition of this shift therefore broadens the scope of the discussion concerning solutions to the quantitative problem of garden supply. If indeed we have seen the last of large-scale house building by the public sector, we must consider the ramifications, in terms of house type and garden provision, of the likely alternatives.

The past three or four years have seen the growth in the private sector of very small dwellings built for sale, often labelled "singles" or "solos". These rarely have any gardens attached. Furthermore, the size of gardens attached to most new dwellings for sale has declined in recent years, and especially so in respect of housing for first-time buyers. The size of gardens with many first-time buyers houses is now dipping below the minimum specifications set out in 1.4. These dwellings appear to be selling successfully. However, we must be careful not to assess demand for particular qualitative attributes, such as the presence or absence of a garden, or its size, on the basis of uptake. At the lower end of the private housing market, similar conditions apply to those pertaining in the

public rented sector, in that people must take what they can afford or are offered, even if it is far from their ideal, since few alternatives exist. Thus as well as the possibility of changes in the "traditional" distribution of gardens between tenures and sectors, we must beware of falling garden sizes within the private sector and suggest safeguards to avoid an extension of this phenomenon. Similarly, any increase in the activity of housing associations in providing for households which would formerly have looked to Local Authority rented housing must be carefully controlled to avoid the growth of a new group of dwellings with inadequate garden provision.

The solutions to the two problems outlined above follow from our definition of the issues involved. Firstly, we must ensure that the gap between supply and demand is bridged by establishing a requirement that 90% of all new dwellings in each tenure group (ie owner-occupied, private-rented, housing association rented and Local Authority-rented) are provided with private gardens. Secondly, we must allot the garden a more central place in the residential design process so that all new gardens are at least 800 ft² in area, well orientated, well shaped and sufficiently private. The difficulty of course lies in the implementation of those ideals so that the objectives are achieved without reducing the supply of new housing. Above all, action will be needed to prevent these new requirements driving up housing costs. Let us take the quantitative problem, of ensuring a 90% supply of new dwellings with gardens, first.

A major inhibiting factor in the realisation of a sufficient supply of dwellings with gardens has been the established pattern of urban land values. Various theoretical models have sought to describe this pattern (1), but all broadly posit a pyramidal structure

of values, highest in the city centre and decreasing towards the suburbs. As a result the intensity of land use tends to reflect the value of locations within the city, and thus we find highly capital intensive office and retail developments within the central business district, with low-density housing at the other extreme, on the outskirts of the city. Planning policies since the 1930s have tended to reflect and reinforce this pattern of land use intensity. (2) Thus a concentric system of density zoning has come to be regarded as the norm, with housing densities progressively increasing towards the city centre. This scheme is amply demonstrated by the Marley Report (see 2.3) and Abercrombies' plans for London (see 2.4).

Whilst there have been various pieces of legislation dealing with land values during this century, (3) they have been more concerned with channelling the unearned increment from transactions in land to the State than fundamentally altering the distribution and structure of land values. Thus, there has been no attempt to change the density ring structure through a revision of land values. Indeed in a market economy there is no straightforward method of counter-acting the trend towards high inner and central area land values, beyond providing a State subsidy to counter the undesirable effects of high land prices on development. The downward revision of housing densities in the inner areas of cities, in order to provide private gardens at 'suburban densities' (8-15 dpa) would, therefore, be an example of a policy which runs counter to the established theory of land use intensity and land values.

If, as appears to have been the case for most of the period under discussion here, higher densities and the accompanying deficiency of gardens in inner city housing have been the result of high land

values, then a subsidy to counteract this differential land price and enable suburban-type densities to be achieved should overcome the problem. Whilst such a subsidy may place a serious strain on central or local budgets, there are powerful arguments in its favour. These arguments rest on the belief that there is little point, or indeed economic sense, in providing a type of housing which is radically different from that which people desire. The experience of large scale flatted development in the 1930s (see 2.3) and 1950s (see 2.5, 2.6) illustrates this point well. Whilst the debt charges are still being paid off, many unpopular developments from the 1950s and 1960s are currently being demolished; the total cost of initial construction, demolition and the necessary rehousing of the tenants, greatly outweighs the cost of providing satisfactory homes in the first place. Furthermore, social justice can be invoked as a reason for providing dwellings with gardens in the inner city. Since the overwhelming proportion of the national stock of owner-occupied dwellings have private gardens attached, whilst the overwhelming proportion of dwellings without gardens are in the public rented sector, it must follow that an element of discrimination against the council tenant exists. In an affluent and supposedly egalitarian society there are no grounds for such discrimination. Also a very old argument in support of greater garden provision is available. In 1.2 the nineteenth century view of gardens as producing social stability and contributing to moral virtue by preventing idleness has been noted. In twentieth century terms the basis of this viewpoint, that people who live in dwellings and surroundings they like, are likely to care for their environment and be less of a cost to the public purse, still holds good. This contention is ably

supported by Newman's work on defensible space (4). Furthermore, in a period of high unemployment, especially amongst inner city dwellers, the opportunity of garden cultivation for both pleasure and profit must also appear as a credit on the balance sheet. In support of this view point Pahl has recently argued that we have now reached a turning point in the development of cities. These should no longer be viewed as "machines for reproducing labour power and increasing surplus value", but rather should be designed on the basis of "their opportunity structures for getting by" (5). The increasing reliance on an informal economy, which this latter phrase implies, suggests an important future role for the private garden.

The organisation of this suggested subsidy could follow precedents set by Government in the past. Firstly, where the subsidy is designed to provide public sector housing, it could be framed in a similar fashion to the 'expensive sites' subsidy employed in the 1950s. The only difference would be, of course, that Local Authorities should not be influenced into building flats simply because of the high value of the site, but should see the subsidy as a means of offsetting this high land cost in order to allow development of houses and gardens. Where private development, whether for sale or rent, is contemplated, the subsidy could be offered as an inducement to build on inner city sites. Public sector subsidies to the private builder have a precedent in the Chamberlain Act of 1923. (See 2.2)

Alternatively Local Authorities could buy the land, using Central Government subsidy, and then release it to developers at a comparable price to suburban sites, thus obviating the necessity to pay subsidy directly to private developers. The actual rate of subsidy would, of course, vary according to the price of the land. Valuation would need to be carried out by the Local Authority, or perhaps by an independent valuer, in order to avoid disputes between land owners

and Local Authorities. Problems could arise with land owned by industrial or commercial users, and it cannot realistically be suggested that the purchase of much of this land could be carried out except at great expense to the public purse, since owners will inevitably cling to a 'hope value' for such land. Nevertheless some such land will be made available, and in respect of land previously used for housing, there can be little argument against it being re-developed using the proposed subsidy.

Given that the diehard cases of industrial land set at high 'hope values' are not purchased, the actual level of subsidy payments need not amount to a great drain on the exchequer. The argument for lower densities and garden provision in the inner areas can be supported on economic grounds, which suggest that such development would not prove excessively expensive. Firstly, as Richardson (6) and Walker (7) have pointed out, inner-city households have traditionally subsidised suburban households' use of gas, electricity, water and sewerage. This situation has arisen because of the payment of fixed standing charges for there utilities, irrespective of the length of service runs involved. Runs to and within suburbs are obviously much longer than those in inner city locations. Thus there is an argument for lowering inner-city housing densities on grounds of financial equality in respect of service provision. Furthermore, development in the inner city could utilise existing infrastructure, at least in part, and thus reduce costs in this way. Secondly, there is now a strong possibility that land values in the inner areas of many cities are not so high, relative to suburban values, as the classic urban land value curve would suggest. Whilst the demand for greenfield sites for new suburban homes remains strong and land

changes hands at prices sometimes in excess of £50,000 per acre, the growing areas of vacant land in the inner cities rarely attract such prices. Indeed, transactions in these areas are infrequent owing to the lack of commercial interest in the inner city for development of either industry, commerce or housing. This lack of interest in inner-city sites, despite the plentiful supply of land zoned for a variety of uses, has prompted Central Government to compile land registers of vacant sites in order to stimulate their development (8).

The imposition of land use zoning restrictions may further inhibit the development of inner city housing. Large areas of land have been zoned for industry, which is unlikely to develop. However, these policy statements have resulted in a very high site valuations which serve only to discourage potential housing developers. Assigning a money value to such apparently unwanted sites is fraught with difficulty. Many are owned by Local Authorities, whose valuers assign a notional value, often based on the classic assumptions concerning land value gradients. The apparent slump in the actual value of land in the inner city, coupled with the continued demand for suburban house-building sites, has been noted by Richardson in his formulation of a trade-off model for residential location. He comments that:

"The implications of the model are very compatible with empirical observations that house prices may be higher with increasing distance from the CBD and that suburban residential land prices may be little, if at all, lower than in the central city." (9)

If Richardson is correct, there is a strong case for encouraging low-density suburban-type housing in the inner city since, if the market were allowed to operate normally, without the imposition of unrealistic site valuations by Local Authorities, housing in the inner

city would not prove vastly more expensive than its suburban counterpart, and might in some cases actually cost less. As a result there would be no obstacle to providing almost all new dwellings with a private garden.

This scenario of inner-city land reducing in value as suburban land values increase, so that a rough parity is reached, is important for other reasons apart from the possibilities it extends for improving the level of garden provision. We are now at a stage in the development of many British cities, where former suburbs, now in the inner city, are becoming obsolete and are being demolished, whilst their replacements are located on the present suburban fringe. Should this trend be allowed to continue unchecked we will eventually experience a change in city structure towards a doughnut-like pattern. The central business district will be surrounded by a ring of vacant land, outside which the established suburban ring will gradually erode on its inner circumference. Where green belts have not been tightly drawn this suburban ring will continue to expand on its outer circumference, whilst further suburban development will continue beyond the green belt, where a stringent policy of urban containment is enforced. This leapfrogging of green belts has already been demonstrated by Hall et al (10). The problem of dereliction and lack of demand for inner urban sites has also been experienced in several US cities for some years. Muth, for example, cites the example of New York, where over 100,000 inner city dwellings have simply been abandoned. (11) Whether the official reaction is to leave these dwellings derelict as in the USA, or to clear the unwanted properties, as is generally the case in GB, the existence of a problem of unwanted land remains unquestionable. The case for

residential development, of a kind which is popularly desirable, in the inner city is thus valid on strategic grounds, as a means of preventing the depreciation of extensive inner areas.

This phenomenon of increasing disutility of the inner urban housing stock was tacitly recognised very early in this century by Lever, and was seen as a vital factor in the process of producing better housing conditions for the lower paid (see 1.2). He suggested that garden city/suburb housing did not have to be provided at rock-bottom rents, since, though it would attract the middle classes, they would be vacating inner city dwellings for which demand would eventually decrease. These dwellings would fall in value and eventually be replaced. Until the late 1970s this prediction showed little sign of being borne out by events. Whilst massive shifts to the suburbs occurred, sufficient demand for inner city housing remained to maintain rents and land prices. Now, however, we appear to have passed the equilibrium point. Recent work by Spence (12) and Kennett and Hall (13) has shown that inner city cores have been experiencing a consistent loss of population to the suburbs for the past thirty years. The growing accumulation of vacant land in the inner city is clear testament to the lack of demand for inner city sites. The importance of stimulating demand for these sites has already been recognised by Central Government in the designation of the land register. In the likely continued absence of demand from industrial or commercial users, however, residential use must be a prime consideration. Should residential use be contemplated, then the resulting dwellings must be sufficiently attractive to counter the trend of out-migration to the suburbs. In the long term the strategic argument, cited above, implies a massive switch of popular residential demand away from the suburbs and back into the inner areas.

Some small progress has been made already in respect of shifting this demand. Firstly, the recent tightening of the Sheffield green belt has indicated growing misgiving about suburban expansion which may be reflected in other cities. Perhaps the most significant point to arise during the debate on this green belt plan has been the inspector's comment linking restraint on suburban development to inner urban regeneration.

"a certain degree of tightness in the green belt boundary has the benefit of turning the attention of private developers towards the inner areas." (14)

As a possible indicator of Government policy this statement has important implications for the future of urban development. Secondly, the pioneering action of Liverpool City Council in developing cleared inner city sites with suburban-type housing for owner-occupation has already been referred to in 2.6. In this case the excess cost of acquisition and clearance, over and above the price paid by the developers to the Council for the land, amounts to a public subsidy on these dwellings. The granting of such a subsidy, however, should not necessarily be regarded as a net loss to the rate account. If, as has already been suggested, private building for sale, housing associations and other forms of co-operative ownership are to take over from Local Authority rented housing in the future, then the savings made from the demise of public sector building could readily be channelled into subsidising its alternatives. Society has already accepted the principle of subsidisation of housing for low income households. The debate now centres on the tenures of these dwellings. Undoubtedly, the present Government would like to see a drastic cut in the level of subsidy payable to low income households and appears to consider that simply removing the option of Local Authority housing

will both achieve this end and remove the problem of housing the lower paid. The likely result, in the absence of cheap alternative housing in the public sector, is twofold. A severe housing shortage which will cause immense problems over the next few decades is one result. This predicted shortage has already been noted by Shelter, which estimated the shortfall at 240,000 dwellings in 1981, rising to 0.5 million in 1988 (15). Secondly, increased demand will be placed on decaying inner-city housing, because of its relatively low rentals. Thus the possibility of achieving a more stable, socially acceptable stock of housing, and renewing our cities in the interests of society in general, will be delayed if not lost for ever. Subsidy, whether to Local Authorities, private builders or housing associations, is therefore, vital. That part of this subsidy should go towards the provision of private gardens with around 90% of all new dwellings appears equally vital, both on strategic grounds, as an aid to social equality and stability, and as a means of providing a type of housing which the vast majority of consumers desire.

Let us now turn to the question of garden size and design. A minimum garden size of 800 ft^2 has been suggested as a new standard. In spatial terms this 800 ft^2 is approximately equal to the floor area of an average semi-detached house. An estate of semi detached dwellings with rear plots of 800 ft^2 with conventional block spacing could easily be developed at 12 dpa. If the traditional block spacing rules were relaxed, density could be increased to 16 dpa, and if terraces were employed the density could be brought up to 22 dpa (for a detailed tabulation of these relationships see Appendix 1). This recommendation is, therefore, put forward as a minimum standard to be applied to the entirety of the 90% of new dwellings to be

provided with gardens, as suggested above. Larger than average dwellings may require gardens larger than this size, and so it is recommended that gardens attached to dwellings with three or more bedrooms should cover an area not less than the internal floor area of the dwelling. It is also important to recognise that this recommended standard refers to rear gardens only. Front or side garden space, if provided, should be additional to this 800 ft².

Since gardens have been shown to have been regarded, throughout most of the period under discussion, as a peripheral issue in housing design, they need to be brought to the attention of designers and development controllers in an effort to improve professional appreciation of the importance of the garden to the average household. Various ways of achieving this end suggest themselves. One means might be to stimulate the development of model schemes after the fashion of Bournville, New Earswick and the various cottage exhibitions in the early years of this century. The layout of these schemes could be the subject of a competition specifically aimed at improving the design and site layout of small dwellings. An upper cost limit would need to be applied, with architects invited to put forward house plans and site layout designs under a brief within which the garden would function as a prime determinant in the overall design. Emphasis should be placed on cost, garden size, utility, orientation and privacy. Publicity from such a venture might then prove to be a major factor in persuading professional opinion to take gardens more seriously. The recent removal of the RIBA restrictions on architects acting as developers might also be an incentive to entrants for such a competition and as well as once again permitting, in the words of one recent commentator, the emulation of the

"speculative enterprise of John Wood and the Adam Brothers" (16), might also help promote innovations which could benefit garden design.

A more conventional method of increasing professional awareness of gardens would be direct advice from Central Government. Such advice might originally result from a committee of inquiry after the fashion of Tudor Walters, Dudley and Parker Morris. In the absence of such a weighty approach, a departmental circular advising Local Authority planning departments on the importance of gardens, and the principles of good design could prove equally influential. The widespread influence of circular 22/80 has already been noted in the case study areas (see 3.5). Thus advice by circular may prove a most cost-effective measure.

The discussion in Section 3 has questioned the importance of planning 'standards' such as the seventy foot rule, and through the case studies (3.5), has shown how the rigid use of standards can produce housing layouts which are highly unsatisfactory both to their future occupiers and to the development controllers involved. The discussion has raised two questions. Firstly, are the specific standards which are currently employed worth retaining, and secondly, are standards worth using at all? The answers to these questions are highly relevant to possible design advice on gardens, and indeed are vital to the overall aim of producing gardens of a high standard.

The current standards: namely, the seventy foot rule, and sunlight/daylight and density criteria, have been subject to a considerable degree of criticism, especially by Woodford et al (17). In particular, it has been suggested that these standards bear little relation to resident's perceptions of their environment, but

merely reflect long-standing practice by development controllers. If we return to the question of choice in the qualitative attributes of the housing environment, we must conclude that the imposition of these standards may in fact be an important factor in reducing choice. For example, occupiers might willingly trade off road standards, privacy at the front of the dwelling, or lighting in certain areas of the house, in exchange for more garden space. Such a trade-off could take place within an overall density constraint, so long as the normally accepted standards were relaxed. Just such a flexible approach to residential layout planning has already been suggested by the Essex Design Guide (18) (see 2.6) and it is not without significance that this publication, in its radical approach to planning, places the private garden in a much more prominent position in the design process than does the average private builder or the typical development controller.

However, the approach to the design process advocated by the Essex Design Guide did not prove as popular with the building industry as its authors had hoped. Neither did the Guide spawn as many related publications in other counties as was anticipated by its commentators Woodford et al (19). Data on the use of design guides shown in table 3.13 illustrates this point. The most common criticism made of the Guide was its complexity and inapplicability in most circumstances, because of the lack of technical expertise on the part of private developers who might be expected to use it. Some middle way, which avoids continuing reliance on the older and inappropriate standards, whilst not producing over-complicated and equally inappropriate design criteria, is therefore, required. The case studies showed that in principle, standards can be useful; for example, in providing a basis

for negotiations before submission of applications or as a basis for decisions on appeal. We must conclude, therefore, that standards do have an important role to play in design. The question of which standards to use remains. A basic garden standard such as that outlined above might succeed where other measures have failed.

At this point it is important to note that many of those Authorities which have designated specific garden standards have usually continued to operate the more traditional standards as well, and that these often override the garden standards. In one of the case study areas where a garden standard, defined by area, was operated, the standard was based on, and still interpreted as, 35 feet of garden length, just half of the traditionally required seventy feet spacing. Similarly derived and operated garden standards were common elsewhere (see Appendix III). Indeed in almost all cases, whether garden standards are employed or not, the most pervasive factor in the design process appears to be the seventy foot rule. It is proposed, therefore, that not only should a minimum garden standard of 800 ft^2 be introduced for 90% of new dwellings, but that the traditional privacy rule of seventy feet spacing be abandoned. What would be the effects of operating this new system?

Firstly, 90% of new dwellings would be given gardens of 800 ft^2 or more in area. If we further specified that these should be well-shaped, carefully orientated to catch the sun and well-screened, we would have achieved a major objective. Assuming that most gardens would continue to be rectangular in plan, reflecting the frontage width of the dwelling in their own width, then the specification of 800 ft^2 would ensure that with a typical terraced house of around

20 ft frontage the garden length would be 40 ft, providing adequate privacy at the rear. In the case of a typical semi-detached dwelling with garage at the side, a typical frontage width might be 30 ft which would give a garden length of 26 ft. The total distance between opposing backs would, therefore, be 52 ft. So long as the gardens were well screened, this reduction from the normal 70 ft should not create privacy problems. Furthermore, developers aiming at sectors of the market placing a high value on privacy would be free to increase garden size above 800 ft² to increase the privacy distance at the rear. A slight anomaly might occur if part of the area of the garden is at the side of the dwelling. Thus the new standard would have to specify 800 ft² behind the rear elevation of the dwelling. In the case of dwellings larger than the average three-bedroomed semi-detached, developers could normally be expected to provide gardens larger than 800 ft², though the requirement that gardens at least equal the internal floor area of the dwelling is perhaps necessary in order to ensure sufficient privacy at the rear.

At the front of the dwelling the requirement for roads and footpaths normally gives at least 30 ft between opposing fronts. Some planning departments might consider this distance too small and demand additional verges or front gardens to increase privacy. Such criteria should be left entirely to the discretion of the development controllers involved, but it is worth noting that the minimum distance between opposing fronts employed with some success in the Essex Design Guide is around 18 ft. Even at this reduced distance, sunlight/daylight standards, as currently defined, are not infringed. Using these criteria, net densities of 22 dpa for terraces and 16 dpa for semi-detached dwellings could easily be achieved. Privacy is traded

to a certain extent to exchange for garden space, though the garden itself should enjoy increased privacy and utility and the rear of the dwelling remains relatively private. These changes represent a workable method of providing a level and type of garden provision which more closely reflects consumer preferences than do current and past planning policies. They also serve to focus design attention on a matter where public preferences have been researched and voiced, and do not relate to abstract notions of privacy, which whilst it is undoubtedly important, is employed as an inadequate 'blanket' policy. As a result these changes would serve to bring professional judgement into greater accord with the views of the great majority of households.

In its final form, the standard which would be recommended in a Central Government circular should read as follows:

"In the assessment of residential layout designs the traditional requirement that there should be at least seventy feet between the windows of opposing habitable rooms is to be ignored. Ninety per cent of all new dwellings must be provided with a well-screened private garden, which is orientated to catch sunlight for at least a few hours each day, The private garden shall be not less than 800 ft² (90 m²) in area, and shall be positioned behind and directly adjacent to, the rear elevation of the dwelling "

The effect of this standard would be to place much more emphasis on garden provision and design in new housing layouts. Whilst privacy at the rear of the dwelling remains a very important factor which must be considered at every stage, it would now be the garden which provided the privacy, rather than the privacy distance which allowed for some garden space. The stipulation of 90% of new dwellings would also ensure that the number of dwellings provided with gardens, or conversely the number of flats built, approximated reasonably well

to the actual level of demand for them. This stipulation is necessary, since if 100% garden provision were suggested then it could be argued that the planning system was preventing the development of any gardenless flats, or small housing units without gardens, for which there is a small demand. Some choice in the matter of gardens must be allowed, but precisely in order to maximise choice, an adequate supply of gardens must be provided, and on the evidence presented in Section Two, supply has not matched demand at any time during this century.

To suggest that a specific proportion of dwellings should be treated differently from the rest in the control process does, however, raise a difficult problem of administration. Is the proportion to be measured in terms of individual developers contributions or, by site, by district or by county, and over what time period? Every developer or development cannot be expected to include a proportion of flats. But, equally, a developer wishing to develop a central city site with flats cannot reasonably expect to be refused on the grounds that gardens are not included. Other factors such as high demand for flats in central locations from young professional households and the interests of urbanity and townscape must permit a degree of flexibility in favour of some developments. For instance, it might be inappropriate to apply the garden standard rigidly to building in conservation areas. Enforcement of the percentage rule on the basis of specific developers or specific sites is, therefore, not possible. The application of the garden standard must, therefore, be carried out on a district or county-wide basis, as a percentage of the total number of applications passing through development control in a given time period. Since decisions on housing applications are made at district level, this seems to be the best administrative area

for this task. Development controllers must, therefore, monitor the proportion of non-garden development appearing in applications and compare it to the overall number of housing units in applications for planning permission over a period of, say, one to two years. If that proportion differs significantly from 10%, then grounds for refusal on the basis of inadequate garden provision must result.

This new system of control will eventually produce net housing densities which rarely exceed 15 dpa over the whole city. It is important, therefore, to consider the effect on city area which this changed standard implies.

Let us first consider the present density pattern in a hypothetical city of 250,000 households in order to determine the amount of land currently taken up by housing. If we assume that the present city conforms to the national average tenure pattern then:

56% of dwellings are owner-occupied
 30% of dwellings are council rented
 12% of dwellings are privately rented
 (The remaining 2% are variously distributed between housing associations, HM Forces, NHS, Water Authorities etc.
 For the purposes of this calculation these individual categories will be ignored).

According to the analysis carried out in 1.3, dwellings without gardens account for 25% of the total housing stock, this 25% comprising:

	7.5% owner occupied
	10.0% council rented
	<u>7.5% privately rented</u>
TOTAL	25%

If we assume that these 25% of dwellings without gardens are currently developed at the following average densities:

owner-occupied	30 dpa
council rented	40 dpa
privately rented	40 dpa

then the average density of the 25% of dwellings without gardens is 37 dpa. We also assume that the average density of the 75% of dwellings with gardens is 12 dpa. The present city, therefore, is comprised of:

187,500 dwellings at 12 dpa which take up 15,625 acres
and 62,500 dwellings at 37 dpa which take up 1,689 acres

∴ TOTAL RESIDENTIAL AREA OF CITY = 17,314 acres

Let us now consider the effects of the new requirement for at least 90% of dwellings to have at least 800 ft² of garden. This requirement sets a practical maximum density of 15 dpa for 90% of dwellings. Bearing in mind that a proportion of this 90% will be developed for higher income groups at less than 15 dpa, a reasonable estimate of average density would be 12 dpa. For the remaining 10% of dwellings without gardens, an average net density of 30 dpa will serve as a reasonable approximation. What are the changes in density and land take required to accommodate the new standard? Firstly, the 187,500 dwellings at 12 dpa remain. Of the 62,500 dwellings at 37 dpa we need to reduce the density of 37,500 to 12 dpa. This change requires an extra 2,112 acres of land. The reduction of the remaining 25,000, or 10% of dwellings, requires 158 extra acres; thus the total increase in land take by housing of the new requirement is 2270 acres or 13.1% of the existing residential area. If this increase is considered in terms of the diameter of the city, assuming it to be circular and consisting entirely of housing, it represents a percentage change of 6.4%. This change is illustrated diagrammatically below:

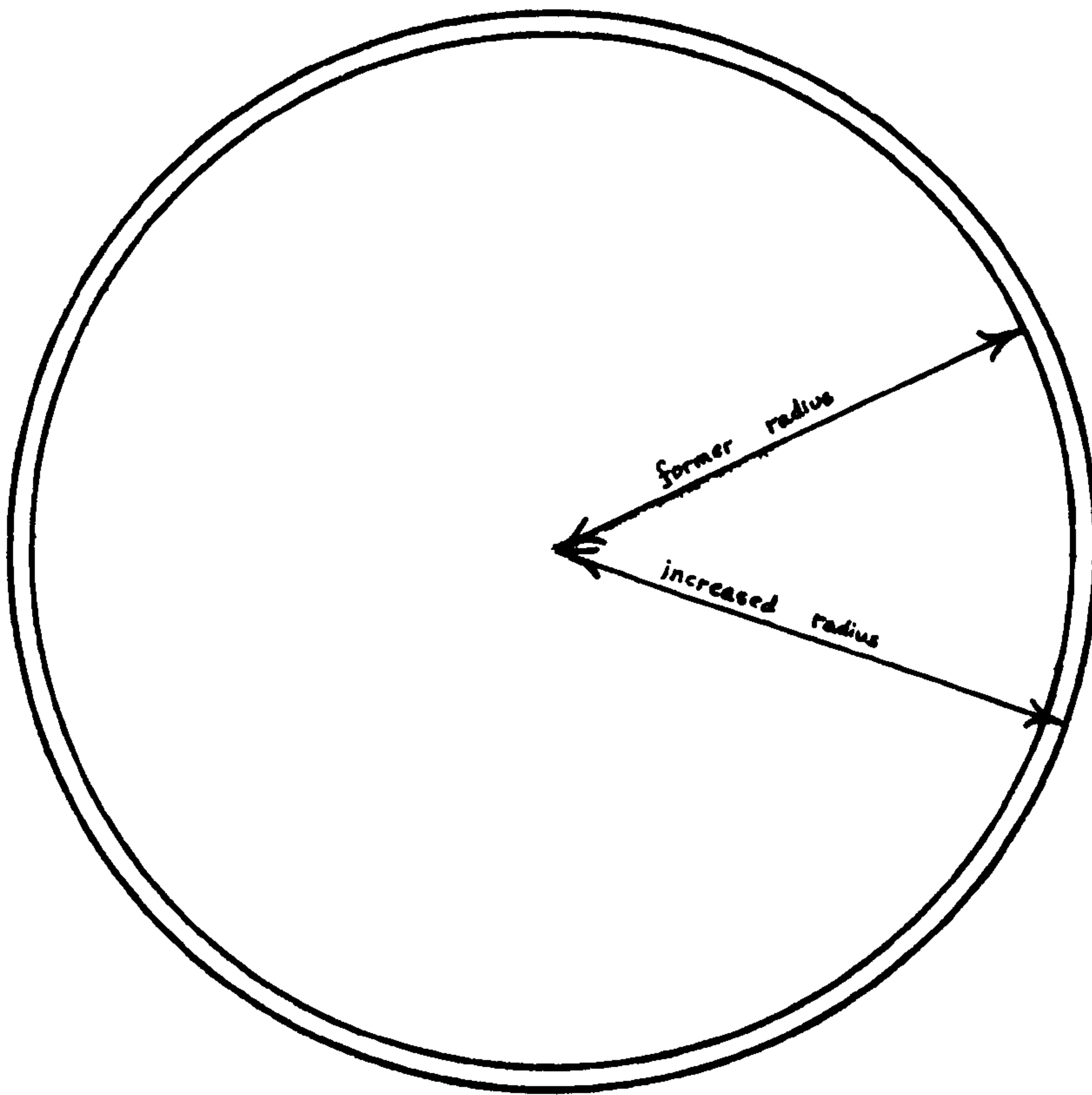


Fig 1: Effect of Density Reduction on City Size

It is apparent, from the diagram above, that the imposition of the new standard would not have a particularly marked effect on urban land take. Indeed, Unwin made this very point in the Marley Report of 1935 (see 2.3). The perceptiveness of Unwin is opposite here, since he noted both the importance of making economical use of land by not wasting odd acres though bad design or lax control, and realised that, if full use of urban land is made, there is a perfectly adequate supply to provide gardens with every dwelling, if such is desired. Unwin worked during a period of transition, from the nineteenth-century city to its more modern successor. He saw the opportunity which existed in the early years of this century to transform city structure and provide a better standard of housing

for all, including the lower income groups. The very high standard of housing proposed in the Tudor Walters Report was a direct result of this vision. By the 1930s the vision was becoming obscured, and in the post-war period it was lost.

In the early 1980s we stand at a further transitional point in the development of the city. Is it to go on expanding whilst its core crumbles and decays, or are we to revitalise the older areas and bring population back in to the city? Even the simple maintenance of inner city populations by high-density solutions has been seen to fail abysmally, so if the city is to be a positive attraction it must provide housing of a type which people want. This thesis has shown that a fundamental requirement of good housing is a private garden. Thus gardens must be seen as central to the layout design of the vast majority of new houses built. To achieve this end requires a marked shift in professional attitudes to housing design. Technical criteria aside, the advice of Raymond Unwin on the requirements of good planning is just as valid today as it was in 1909.

"Keep closely in touch with actual requirements, and be content if we can give comely form and expression in the most simple and practical manner to the obvious needs of those who are to dwell in the towns or suburbs we plan." (20)

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APPENDICES

APPENDIX I: DENSITY AND GARDEN SIZE

The interrelationship between net residential density and garden size is an issue which is fundamental to this study. At what point on the density scale for example does it become impossible to provide accommodation in single-family units so that a proportion of flats have to be included? The answer to this question is of course dependent on technical criteria such as the sunlight/daylight angles and privacy spacing employed. However these criteria have remained at roughly the same levels for most of the period of the study so a definitive solution to the equation of density against dwelling form is possible. Figure 1 shows a rough guide to the proportion of flatted development necessary at specific densities, assuming that all single family accommodation within the scheme is at 12 dpa.

Stone, in Housing, Town Development Land and Costs (1) gives a detailed analysis of the options open to the designers of housing layouts at various densities, using various garden sizes. A selection of tables from this work is given below:

Fig 1 PERCENTAGE OF ACCOMMODATION IN FLATS AT VARIOUS DENSITIES

Source- P.Abercrombie, County of London Plan p171

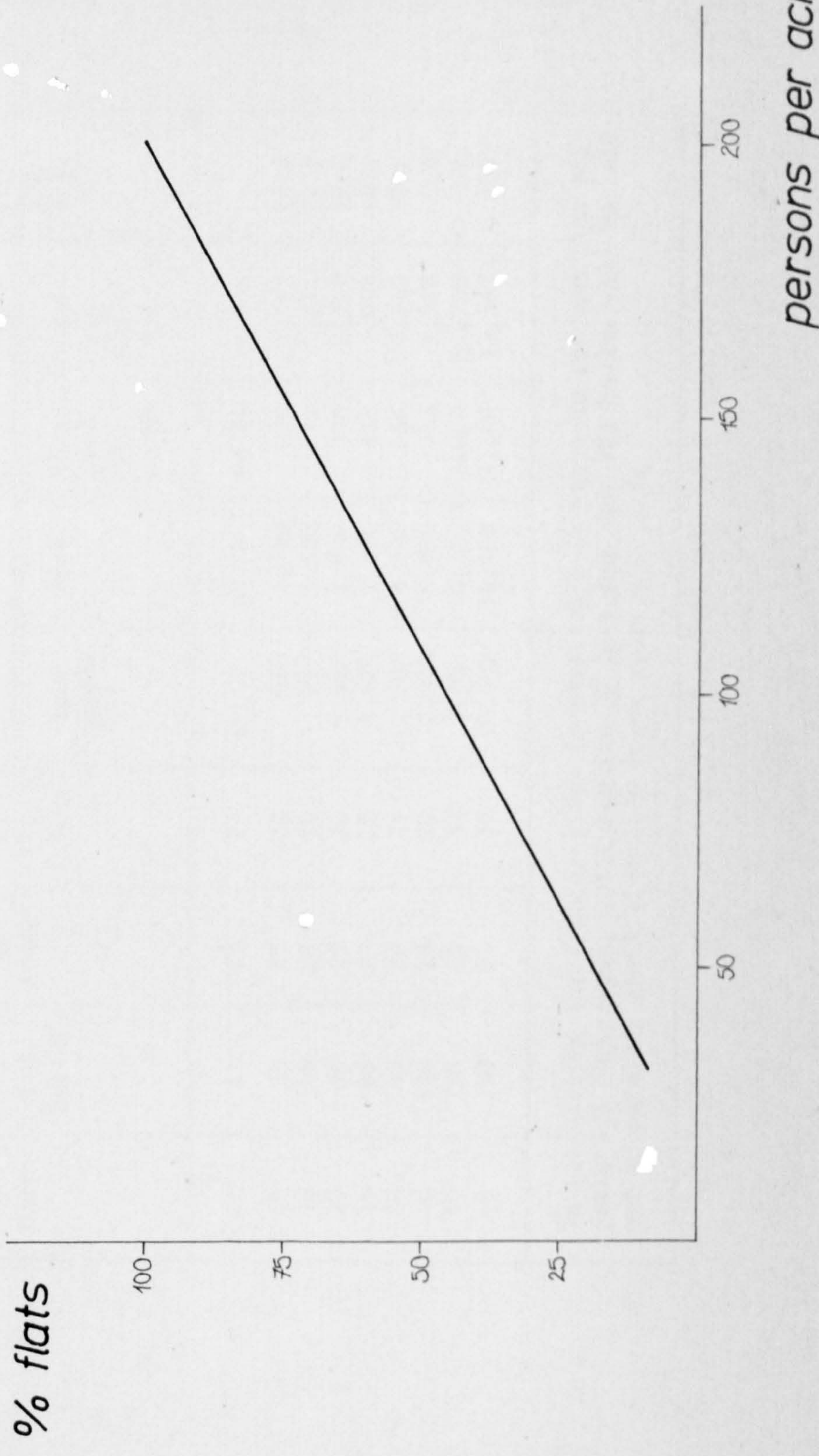


Table 1
Plot Sizes and Density for Houses with Private Gardens

Size of Plot				Area and Density			
Width of Plot	Length of Back Garden	Depth of House	Length of Front Garden	Area			Dwellings per Acre
				Back Garden	Plot	Roads and Foot-paths	Total per Dwelling
ft	ft	ft	ft	sq ft	sq ft	sq ft	sq ft
16	35	25	20	560	1,280	275	1,555
18	40	25	20	720	1,530	311	1,841
20	50	25	20	1,000	1,900	350	2,250
24	66	25	20	1,584	2,664	432	3,096
30	90	25	25	2,700	4,200	556	4,756
40	120	25	25	4,800	6,800	768	7,568
50	150	25	30	7,500	10,250	1,000	11,250
60	180	25	30	10,800	14,100	1,241	15,341
In calculating the figures given in this table it has been assumed that the paths and carriageway will require 30 feet and that the houses will be laid out in parallel roads with side roads every 440 yards.							

Table 2

Plot Sizes and Density - Houses Without Front Gardens

Plot Width (ft)	16	18	20	24	30	40	50	60
Plot Area (sq ft)	1,040	1,260	1,600	2,304	3,600	6,000	9,000	12,600
Total Area per Dwelling (sq ft)	1,315	1,571	1,950	2,736	4,156	6,768	10,000	13,840
Dwellings per Acre	33.1	27.7	22.3	15.9	10.5	6.4	4.4	3.1
Dwellings per Acre (Table 4)	28.0	23.7	19.4	14.1	9.2	5.8	3.9	2.8
In calculating the figures given in the upper four rows of the table it was assumed that the front strips would be only 5 feet long.								

Table 3
Plot Size and Density for Maisonettes with Gardens

No of Storeys	Area of Land for Building Front Garden and Road	Area of Land for Back Garden	Total Land per Block	Area of Land per Room	Habitable Rooms per Acre
2	sq ft 1,800	sq ft 1,800	sq ft 3,600	sq ft 720	60.5
4	1,800	3,600	5,400	540	80.7
6	1,800	5,400	7,200	480	90.8
8	1,800	7,200	9,000	450	96.8
10	1,800	9,00	10,800	432	100.8

Source for Tables 1,2 and 3: Stone P A - Housing, Town Development, Land and Costs, Estates Gazette, pp 21-23

It should be noted however that maisonettes with private gardens are not common. Occasionally blocks of maisonettes, with the lower dwellings provided with gardens have been built, but blocks with the upper dwellings having a garden are rare.

From the information provided in tables 1-3 it is clear that some garden space can be provided with single family dwellings up to densities of around 30 dpa. However this calculation assumes a flat, regular shaped site and no incidental amenity space, parking space, or segregated pedestrian circulation provision. In practice this situation rarely occurs. Furthermore the requirement of most planning authorities for a distance of around 70 feet between opposing habitable rooms is a powerful agent in lowering densities from this theoretical level. Thus in table 2 densities of 33 dpa with adequate (as defined in 1.4) gardens (720 square feet) appear possible, but the calculation employed in the table assumes only 40 feet between opposing fronts, a situation which would be unacceptable to most local planning authorities. Thus in practice single family dwellings with some garden space are only possible up to a density of around 23 dpa, at which point in order to raise site densities, a proportion of flats becomes necessary. If as in the case of figure 1 the development includes single family units with larger gardens, say at around 12 dpa then flats become necessary much sooner.

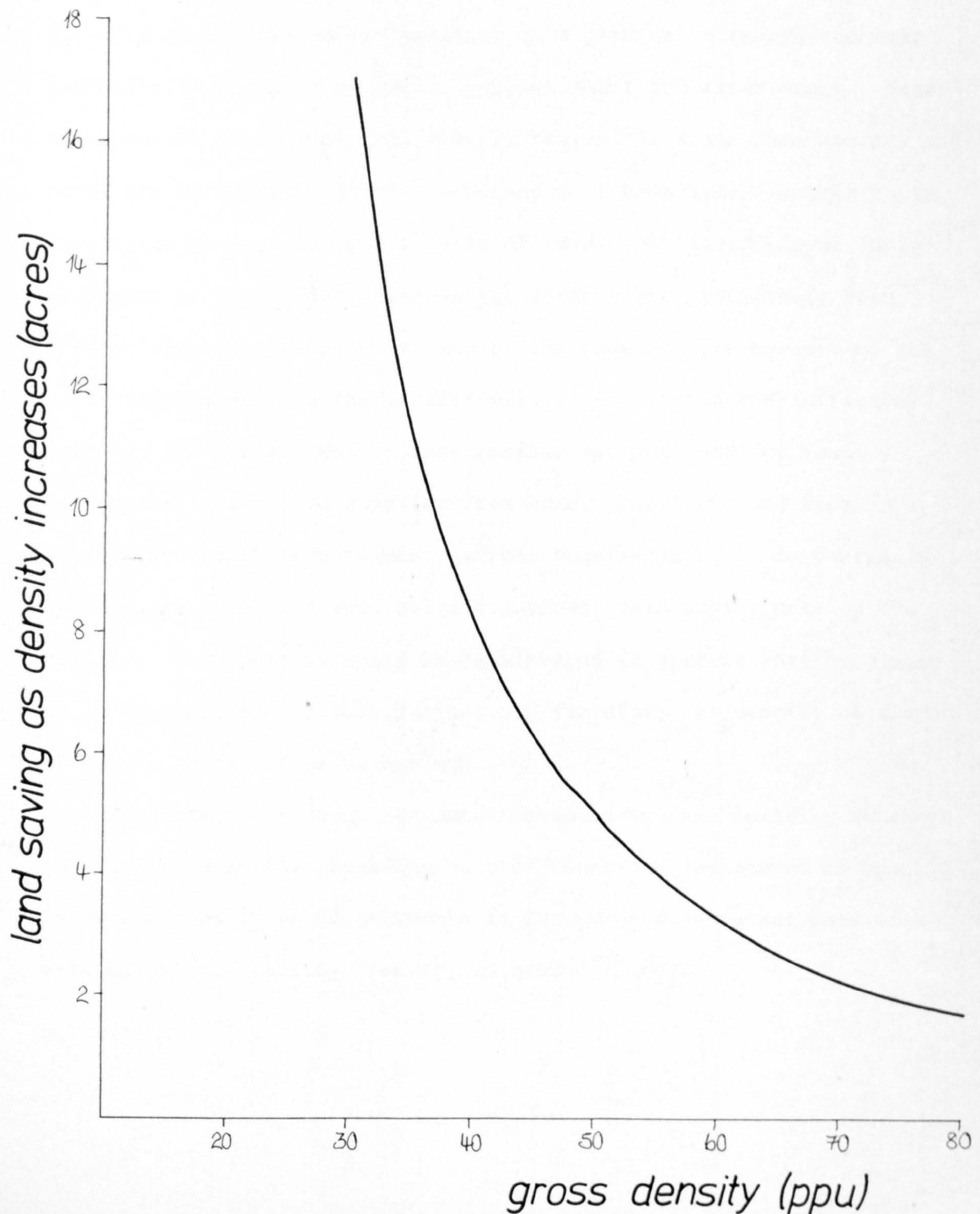
Land Saving

Housing is the major user of urban land. Stone suggests that between 40 and 45% of urban land is taken up by housing. (2) Thus it is clear that any attempt to curb the rate of urban land take will be most effective if it concentrates on reducing the amount of land taken for housing. This reduction can be achieved by raising the net density of development. However the savings in land do not increase in proportion to the increase in density. As figure 2 shows a large saving is made by raising densities at the lower end of the scale; thus an increase in gross population density from 30-40 ppa saves

Fig 2

LAND SAVING AGAINST INCREASE IN GROSS POPULATION DENSITY

Source: MHLG-Residential Areas, Higher Densities: Planning Bulletin n2, 1962



9 acres, but an increase from 40-50 ppa saves only 3 acres and from 50-60 ppa only 1½ acres and so on. Therefore there exists a strong argument against raising densities above say 20 dpa on land saving grounds, especially, when the increased costs of flat building are taken into account.

Development at around 20 dpa allows all accommodation to be in the form of single family dwellings with gardens, although the rear gardens will probably be small, perhaps about 500 square feet. Many commentators argue that this size is reasonable since land savings and costs are optimised. However Ward and Best have argued convincingly that large gardens are not a waste of land. (3) According to their estimates in The Garden Controversy, gardens are potentially more productive than agricultural land of the same quality because of the extra care taken, and the careful utilisation of space practised by domestic gardeners. Whilst most gardens are not used for food production, since food supplies from home agriculture and from imports are sufficient to meet current requirements, in an emergency or shortage such as a war, private gardens could easily make up the deficit. This process would be facilitated if gardens were of a size which was amenable to cultivation, and therefore net density of around 12 dpa is suggested as an optimum.

Thus there are sound economic arguments against building at above the density when flat building becomes necessary, at around 23 dpa. There are equally valid arguments in favour of development densities well below this ceiling however, at around 12 dpa.

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APPENDIX II

The following tables, which are not included in the main text, are relevant to the analyses discussed in 3.4.

Table 1: Crosstabulation of Local Authority Type by Gross Population

	<u>Density</u>					
	Gross population density (persons per acre)					
	1-5	6-10	11-15	16-20	21-25	>25
Metropolitan District	4	9	2	2	0	0
Shire District	22	2	2	0	0	0
London Borough	1	3	5	4	3	5
Large City	1	0	3	3	1	0
New Town	2	5	1	0	0	0

Table 2: Crosstabulation of Local Authority Type by Frequency of

	<u>Operation of Density Standards by Population Size</u>			
	<100,000		>100,000	
	N	%	N	%
Metropolitan District	0	0	7	41
Shire District	6	23	3	12
London Borough	-	-	19	90
Large City	-	-	3	37
New Town	6	67	2	22
Overall	12	43	34	64

Table 3: Crosstabulation of Local Authority Type by Frequency of
Operation of Visual Privacy Standards by Population Size

	100,000		100,000	
	N	%	N	%
Metropolitan District	1	6	12	70
Shire District	7	27	1	4
London Borough	–	–	14	67
Large City	–	–	6	75
New Town	3	33	2	22
Overall	11	39	35	66

Table 4: Crosstabulation of Local Authority Type by Frequency of
Operation of Sunlight/Daylight Standards by Population

	100,000		100,000	
	N	%	N	%
Metropolitan District	1	6	9	53
Shire District	7	27	0	0
London Borough	–	–	19	90
Large City	–	–	7	87
New Town	2	22	2	22
Overall	10	35	37	70

Table 5: Crosstabulation of Local Authority Type by Frequency of
Operation of Density Standards by Political Control

	Conservative		Labour	
	N	%	N	%
Metropolitan District	1	6	6	35
Shire District	5	19	3	11
London Borough	10	47	8	38
Large City	1	12	2	25
New Town	n/a		n/a	
Overall	17	52	19	66

Table 6: Crosstabulation of Local Authority Type by Frequency of
Operation of Visual Privacy Standards by Political Control

	Conservative		Labour	
	N	%	N	%
Metropolitan District	5	29	8	47
Shire District	3	11	4	15
London Borough	6	28	7	33
Large City	0	0	6	75
New Town	n/a		n/a	
Overall	14	42	25	86

Table 7: Crosstabulation of Local Authority Type by Frequency of
Operation of Sunlight/Daylight Standards by Political Control

	Conservative		Labour	
	N	%	N	%
Metropolitan District	4	24	6	35
Shire District	2	8	3	12
London Borough	9	43	9	43
Large City	2	25	5	63
New Town	n/a		n/a	
Overall	17	52	23	79

APPENDIX III:

RECOMMENDED GARDEN SIZE STANDARDS AS STATED IN SURVEY RETURNS

<u>Local Authority</u>	<u>Recommendation</u>
LB of Redbridge	20 Metres ² per habitable room
LB of Hillingdon	3 metres depth screened for privacy + 60 metres ² garden or 35 metres ² communal space for dwelling
LB of Barnet	Minimum 35 feet deep rear gardens
Knowsley MDC	Minimum garden length of 11 metres
Leicester City Council	15 metres ² per bed space
St Edmundsbury DC	Minimum 100 metres ² gardens for houses, 50 metres ² for flats
Southampton CC	At least 30 feet depth rear gardens
Sunderland MDC	37 metres ² rear gardens
LB of Wandsworth	All family housing to have access to a garden
LB of Southwark	9 metre depth x frontage width gardens for all family dwellings.
Peterborough DC	one bed dwelling 40 metre garden two bed dwelling 60 metre garden three bed dwelling 75 metre garden larger dwelling 100 metre garden
Milton Keynes DC	a) Private open space to be maximised b) Range of minimum garden sizes with rental estates, namely:- 0-50 metres ² 10% of dwellings 50-75 " 15% " " 75-100 " 30% " " 100-120 " 30% " " 120+ " 15% " "
Telford DC	Private and local authority housing minimum garden size 700 feet ² .
LB of Bromley	Usually a minimum 20-30 feet garden length depending on area and other factors
LB of Lambeth	Policy Statement "requires adequate provision of open space and/or garden space and resist reductions in existing space

<u>Local Authority</u>	<u>Recommendation</u>
Bolton MDC	Minimum rear garden depth of 10.5m
Liverpool MDC	9 metres ² per bed space for local authority dwellings (excluding car parking)
Islwyn DC	Normal requirement of 10 metre depth x width of frontage
Anglesey DC	No specific requirement except open plan fronts and private rear gardens to minimise maintenance costs
LB of Havering	No formal policy but design briefs specify private gardens in new schemes
Wellingborough DC	Minimum rear garden size of 875 feet ² 100 feet ² of communal garden per flat
LB of Merton	"adequate and suitable garden area" required
Fenland DC	1000 feet ² of garden per dwelling
Boston DC	"adequate private areas at the rear of dwelling houses"
LB of Waltham Forest	Gardens "generally required in family housing developments"
Allerdale DC	Minimum 75 metres ² gardens. Use of design to create as high a level of privacy as possible
Trafford MDC	Minimum 80 metres ² garden adjacent to house Minimum 18 metres ² communal space per dwelling
Dudley MDC	Private garden areas must be 700 feet ² , must be usable space
LB of Harrow	Minimum garden depth of 35 feet
Sandwell MBC	Minimum garden depth of 35 feet or minimum rear garden of 700 feet ²
Leeds MBC	Minimum 8 metre garden length and 42 metre ² area Gardens must allow room for extension of dwelling or provision of garage, shed etc without reducing a) amenity of the dwelling's interior or exterior spaces b) prospect and amenity of neighbouring property
Chester CC	Private garden must be able to accommodate i) car parking, ii) childrens' play/sitting out, iii) clothes drying area, iv) garden shed/green-house

<u>Local Authority</u>	<u>Recommendation</u>
Worthing BC	Minimum garden length 35 feet. 30 feet allowed on infill sites
Runcorn DC	Minimum garden size 50 metres ²
Wakefield MDC	Minimum garden area of 50 metres ² , especially on narrow plots. Detached ₂ and semi-detached houses, minimum 100 metres ² required.
LB of Haringey	For family housing (ie 2+ bedrooms) conditions appropriate to families, including private open space (preferably in the form of gardens or patios) integral to each dwelling should be provided
Tameside MDC	Family housing requires minimum rear garden of 900 feet ² . This standard can be relaxed for patio housing or where communal and/or play space is provided

APPENDIX IV

The following tabulation shows the total sample of Districts which were sent a copy of the first survey questionnaire. X's in successive columns show the response to this and the second questionnaire.

	Positive Response	Null Response	Sent 2nd questionnaire	Positive Response
<u>Metropolitan Districts</u>				
Barnsley	X		X	X
Doncaster				
Rotherham		X		
Sheffield	X		X	X
Birmingham				
Coventry				
Dudley	X		X	X
Sandwell	X		X	X
Solihull		X		
Walsall				
Wolverhampton				
Liverpool	X		X	X
St Helens	X		X	X
Sefton		X		
Wirral				
Knowsley	X		X	X
Wakefield	X		X	X
Kirklees		X		
Bradford	X		X	
Calderdale		X		
Leeds	X		X	X
Gateshead				
Newcastle	X		X	X
N Tyneside	X		X	X
S Tyneside				
Sunderland	X		X	X
Bolton	X		X	X
Bury				
Manchester	X		X	X
Oldham				
Salford				
Tameside	X		X	X
Wigan				
Rochdale				
Stockport		X		
Trafford	X		X	X

	Positive Response	Null Response	Sent 2nd questionnaire	Positive Response
<u>London Boroughs</u>				
Barking				
Barnet	X		X	
Bexley				
Brent				
Bromley	X		X	X
Camden	X		X	X
City of London		X		
Croyden		X		
Ealing	X		X	X
Enfield				
Greenwich	X		X	X
Hackney				
Hammersmith	X		X	X
Haringey	X		X	
Harrow	X		X	X
Havering	X		X	X
Hillingdon	X		X	
Hounslow	X		X	X
Islington				
Kensington & Chelsea				
Kingston	X		X	
Lambeth	X		X	
Merton	X		X	X
Newham	X		X	
Redbridge	X		X	X
Richmond	X		X	X
Southwark	X		X	X
Sutton	X		X	
Tower Hamlets		X		
Waltham Forest	X		X	X
Wandsworth	X		X	X
Westminster		X		
<u>Shire Districts</u>				
South Bedfordshire	X		X	X
Reading		X		
Chiltern		X		
Fenland	X		X	X
Chester	X		X	X
Stockton	X		X	X
Kerrier				
Allerdale	X		X	
Wimborne	X		X	X
Derwentside	X		X	X
Hove	X		X	X
Basildon				
Cotswold	X		X	X
Hereford	X		X	X
High Peak	X		X	X
North Herefordshire	X		X	X
Medina				

	Positive Response	Null Response	Sent 2nd questionnaire	Positive Response
Thanet				
Lancaster	X		X	X
Boston	X		X	X
Norwich	X		X	X
Wellingborough	X		X	X
Tynedale	X		X	X
Richmondshire	X		X	X
Bassetlaw	X		X	X
Cherwell	X		X	X
South Shropshire		X		
Taunton		X		
St Edmondsbury	X		X	X
Woking				
Stafford				
Worthing	X		X	X
Kennet	X		X	X
Rhuddlan		X		
Llanelli	X		X	X
Islwyn	X		X	X
Ynys Mon	X		X	X
Cynon Valley	X		X	X
Brecknock	X		X	X
<u>Large Cities</u>				
Bristol				
Cardiff		X		
Derby	X		X	X
Hull	X		X	X
Swansea	X		X	X
Portsmouth	X		X	X
Leicester	X		X	X
Nottingham	X		X	X
Plymouth		X		
Southampton	X		X	
Stoke	X		X	
<u>New Towns</u>				
Aycliffe	X		X	X
Basildon				
Bracknell		X		
Central Lancs				
Corby				
Cumbran	X		X	X
Harlow		X		
Milton Keynes	X		X	X
Northampton				
Peterborough	X		X	X
Peterlee				
Redditch	X		X	X
Runcorn	X		X	X
Skelmersdale				

	Posftive Response	Null Response	Sent 2nd questionnaire	Positive Response
Stevenage				
Telford	X		X	X
Warrington	X		X	X
Washington	X		X	X
Mid-Wales DC				

The following pages include copies of both questionnaires sent to the
Local Authorities which are listed above.

Sheffield City Polytechnic

Pond Street

Sheffield S1 1WB

Telephone Sheffield 20911 (STD Code 0742)

Telex 54680

Department of Urban & Regional Studies

Head of Department A M D Leaker MA BSc DipTP FRICS MRTPI AIHM AMBIM

JK/CPM

20 July 1979

Dear Sirs

Please find enclosed a copy of a questionnaire which I would be most grateful if you could complete and return to me at the above address. Your response will provide invaluable information for a research project entitled "Government Policy in Private Garden Provision", which I am presently undertaking at Sheffield City Polytechnic.

My study is an attempt to show how government policies, both central and local, shape the residential environment, with special reference to the private garden. The purpose of this questionnaire is to gain a clearer picture of present local authority policies, to compare the policies of different authorities and to assess whether historic trends identified earlier in the study are continuing or not.

The information you supply in answering the questionnaire will form the basis of a PhD thesis, and as such, I can assure you, will be treated in the strictest confidence.

If you have any queries regarding any of the questions please do not hesitate to telephone me on Sheffield (0742) 20911 ext 345. If any information requested is not held in the form in which it is asked for, please supply me with whatever relevant information you might have, regardless of the strict format of the questionnaire.

A sae is provided for return of the completed form. I hope that you will be able to assist me.

Yours faithfully



Jon Kellett



SHEFFIELD CITY POLYTECHNIC

DEPARTMENT OF URBAN AND REGIONAL STUDIES
POND STREET
SHEFFIELD
S1 1WB

TEL: SHEFFIELD 20911
Ext: 345
Mr J Kellett

Please try and give as full as possible an answer to the following questions. All information supplied will be treated in the strictest confidence.

1. The name of this local authority is:-

2. Administrative structure

i) Total number of employees is:-

ii) Total number of separate departments is:-

3. Political structure of the Council

i) The controlling party is:-

ii) Has control changed hands in the last 5 years?

Yes No

--	--

4. The population living in your authority area totals:-

5. Is land availability for residential development a problem in your area?

Yes No

--	--

6. Do You have a formal design guide for residential areas?

Yes No

--	--

If you are a district authority which operates within the framework of a county design guide please indicate.

Yes No

--	--

7. If you do not have or are not subject to a design guide, ignore this question and proceed to question (8).

If you are subject to a design guide please continue.

- i) How long has this design guide been in operation?
- ii) Does it contain any recommendations or standards concerning the provision of public open space?

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

Please specify with regard to:

- a) Incidental amenity space
- b) Play areas
- c) Sports fields
- iii) Does it contain any recommendations regarding the desirability or non-desirability of providing private garden space for private and local authority housing?

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

Please specify:

- iv) Does it contain any recommendations as to the size and shape of private garden plot?

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

Please specify:

- v) Have you experienced any difficulty in implementing these private open space standards?

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

Please explain the reasons for this difficulty:

- vi) Has any difficulty which you have experienced caused these standards to be adjusted by you?

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

Please specify any adjustments in standards:

8. If residential development in your authority area is not subject to a design guide OR if your design guide does not contain recommendations regarding public and private open space please complete this question.

- i) Do you have any other specific policy regarding the provision of PUBLIC OPEN SPACE?

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

Please specify with regard to:

- a) Incidental amenity space
- b) Play areas
- c) Sports fields

ii) How long have these policies been in operation?

iii) Have you experienced any difficulty in implementing these public open space policies?

Yes No

--	--

Please explain the reasons for this difficulty:-

iv) Has any difficulty which you have experienced caused these policies to be adjusted by you?

Yes No

--	--

Please specify any adjustments in standards:-

v) Do you have any other specific policy regarding the provision of PRIVATE GARDEN SPACE?

Yes No

--	--

Please specify:-

vi) How long have these policies been in operation?

vii) Have you experienced any difficulty in implementing these policies?

Yes No

--	--

Please explain the reasons for this difficulty:-

viii) Has any difficulty which you have experienced caused these policies to be adjusted by you?

Yes No

--	--

Please specify any adjustment in standards:-

9. Do you operate (or are you subject to from County level) any standards with regard to density?

Yes No

--	--

i) Please briefly specify the nature of these standards in relation to:-

a) OVERALL TOWN DENSITY

b) GROSS DENSITY
(ie. Neighbourhood density)

c) NET RESIDENTIAL DENSITY

ii) Where are these standards published?
(ie. Design guide, structure plan,
local plan etc.)

iii) Have you experienced any difficulty
in implementing these standards?

Yes No

--	--

Please explain the reasons for this
difficulty:-

iv) Have any difficulties which you have
experienced caused these standards to
be adjusted by you?

Yes No

--	--

Please specify and adjustments in
standards:-

10. i) Do you operate (or are you subject to from County level) any standards in relation to VISUAL PRIVACY in residential developments?

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

Please specify the nature of these standards in relation to:

a) ground level front:

b) ground level rear:

ii) Where are these standards published?

iii) What is the origin of these standards?
(ie minimum statutory requirements, D o E recommendation, long standing authority policy, etc)

11. i) Do you operate (or are you subject to from County level) any standards in relation to SUNLIGHT/DAYLIGHT space provision in residential developments?

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

Please specify the nature of these standards:

ii) Where are these standards published?

iii) What is the origin of these standards?

12. i) If you have no official statements regarding PRIVATE GARDEN SPACE does this mean that whatever is specified concerning private garden space on developers' plans submitted to you for approval, is automatically passed by the planning committee?

Yes No

--	--

ii) If NO Please specify which of the following considerations have affected decisions regarding PRIVATE GARDEN SPACE DESIGN (ie. presence or absence of garden plot, also size and shape of plot)

	Always	Very Often	Sometimes	Hardly Ever	Never
1. DENSITY					
2. HIGHWAYS					
3. NOISE					
4. SERVICES					
5. SUNLIGHT/DAYLIGHT					
6. PRIVACY					
7. PUBLIC OPEN SPACE					
8.					
9.					
10.					

Please add any further relevant categories in the spaces provided.

Please tick as appropriate.

12. If you would like to comment on frequently occurring circumstances, please do so in the space provided below:-

13. In what approximate percentage of applications for private sector housing schemes submitted to the authority for approval are private gardens contained?

	% of applications				
	100%	75%	50%	25%	0%
Private gardens proposed					

14. i) How many new housing units (all types of tenure) do you estimate will be required in your authority area by 1990?

- ii) Is there at present adequate land available to meet this need?

Yes No

--	--

15. i) What is the rate of provision of allotments per 1000 population in your authority area?

<10	20	30	40	50	60	70	80	90	100	>100

- ii) Is there a waiting list for allotments in your area?

Yes No

--	--

16. Which department of your authority is responsible for the layout design of public sector housing projects undertaken in your authority area?

17. Would you please indicate your own department and your position within that department.

Many thanks for completing this questionnaire. If you have any difficulties please contact me at the number shown on top of page one.

SHEFFIELD CITY POLYTECHNIC

DEPARTMENT OF URBAN AND REGIONAL STUDIES
POND STREET
SHEFFIELD
S1 1WB

TEL: Sheffield 20911
EXT: ~~345~~ 353
Mr J Kellett

Please try and give as full an answer as possible to the following questions. If you would like to make any additional comments on any of the questions please feel free to do so. All replies will be treated in the strictest confidence.

1. The name of this local authority is:

2. Does your authority operate, or is it subject to from County level, a formal DESIGN GUIDE, or SIMILAR SET OF STANDARDS in relation to residential design in the PRIVATE SECTOR?

Please comment if desired:

YES	NO
<input type="checkbox"/>	<input type="checkbox"/>

(Please tick as appropriate)

3. If the answer to question 2. is "no" please ignore this question.

If the answer to question 2. is "yes", are these standards applicable also to COUNCIL HOUSING developments?

YES	NO
<input type="checkbox"/>	<input type="checkbox"/>

4. What is the usual form of COUNCIL HOUSING at present planned, or under construction in your authority area?

(If a mixture of several forms is regularly employed, indicate this by placing a tick in the appropriate lines of column 2.

If differing forms are used depending on the location of the site, indicate by placing a tick in the appropriate lines of column 3).

	1	2 mixture of	3 depending on location
Houses (12-15 dwellings per acre)			
Houses (15+ dwellings per acre)			
Maisonettes			
Low-rise flats (3-5 storeys)			
High flats (over 5 storeys)			

5. What type of open space provision is usually employed within the residential area?

Private gardens with every house
Mixture of private and public open space
Mostly communal open space
All communal open space

(This question assumes that the dwelling type is confined to houses, ground floor maisonettes and ground floor flats).

6. Do you regard the present subsidy system and Housing Cost Yardstick adequate to allow you to build exclusively houses and gardens at densities of around 12-15 dwellings per acre?

Please comment if desired:

YES	NO
<input type="checkbox"/>	<input type="checkbox"/>

7. Do you consider current land values to be a major factor in keeping council housing densities high in comparison with private sector densities?

Please comment if desired:

YES	NO
<input type="checkbox"/>	<input type="checkbox"/>

8. i) What are the present proportions of privately and publicly owned housing in your authority area?

Privately owned	%
Council owned	%
Housing Assoc owned	%

ii) Do you as an authority intend, maintaining these proportions or, increasing one tenure group at the expense of another?

1. Maintain present proportions
2. Increase owner occupation
3. Increase council housing
4. Increase housing association housing

9. What are the present proportions of council owned houses and flats in your authority area?

Houses	%
Flats	%

(Maisonettes may be added as a separate category or amalgamated with flats).

10. If council housing or housing association owned units are to be built in your authority area in the future would you please indicate the most likely form these will take.

Houses (12-15 dpa)
Houses (15+ dpa)
Maisonettes
Low rise flats (3-5 storeys)
High flats (over 5 storeys)
Others:

11. What is the present state of the waiting list for council houses and flats in your area?

Houses	months/years*
Flats	months/years*

* delete as appropriate

12. Would you please indicate your own department and your position within that department.

Many thanks for completing this questionnaire. If you have any difficulties please contact me at the number shown on top of page one.

GUIDELINES FOR INTERVIEW OF LOCAL AUTHORITY STAFF

UNLESS SPECIFIED OTHERWISE I AM ASKING FOR YOUR VIEWS AS AN INDIVIDUAL, RATHER THAN THE OFFICIAL VIEWS OF YOUR LOCAL AUTHORITY.

1. How important a feature of the residential environment do you regard the private garden?
2. What do you think is the function of the private garden?
3. What proportion of households do you think would choose a house and garden given the opportunity?
4. How important a feature of the residential environment do you regard communal open space?
5. What do you think is the function of communal open space?
6. Do you think that private garden space and communal open space are interchangeable?
7. Do you think that there ought to be any distinction in terms of type and amount of amenity space provision between public and private housing developments?
8. What is the maximum net density that you would recommend in allocating land for residential use?
9. Is there a national standard for recommended garden size?
10. Does your local authority operate any standards in relation to:
 - a) the proportion of dwellings which should be provided with gardens.
 - b) The size of gardens.
11. What is your opinion of these standards?
12. What is your general opinion about the usefulness of operating standards such as garden standards, sunlight/daylight, privacy?