

Everything to be gained!

Patrick Clarke on how Garden City planning principles can help unlock the delivery of attractive and sustainable neighbourhoods for the 21st century

We need to find new ways of creating high quality and sustainable homes at a price people can afford and in neighbourhoods where they will want to live.

The current system is not delivering. We are simply not building the number of homes that are needed quickly enough.

Moreover, there are significant concerns about the quality of housing layout and design and recognition that higher levels of sustainability are needed in new homes to meet carbon reduction targets. These aspirations for improved quality and higher standards of sustainability need to be reconciled with the need to provide homes that are also more affordable.

Delivering more and better homes, more quickly and more affordably is therefore a defining challenge for our generation.

While much attention has been given to the financial and policy mechanisms needed to unlock housing supply, less consideration has been given to the character and quality of the residential neighbourhoods we want to create. This is an important omission because public opinion polls show that concerns about the quality and character of new development are an important factor in public opposition to new home building and thus part of the reason why the planning process is often so slow, confrontational and costly.

Garden Cities and Suburbs are increasingly recognised as providing an important part of the solution to our housing shortage. Planned at a larger scale, they provide the opportunity for a more comprehensive approach to building communities that includes not just homes, but also employment, a town or district centre with shops and services, open space and leisure facilities as well as high quality public transport systems.

The benefits of this more visionary and comprehensive approach are increasingly clear. However, as Unwin recognised, alongside the overarching vision there is "the detailed aspect of the question" concerned with "the proper arrangement of the individual buildings and the limitation of the amount of building in relation to the area of open space".

This more detailed question was important then as it is now because it concerns not just the character and quality of new homes, but also their cost and affordability. The principal focus of Unwin's analysis in *Nothing Gained by Overcrowding!* was therefore different approaches to housing layout and it is to these issues that we now return.

Everywhere but nowhere

Concerns about the 'everywhere but no where' character of

"The Garden City movement, as the name implies, stands for a more harmonious combination of city and country, dwelling house and garden."
Raymond Unwin, *Nothing Gained by Overcrowding!*

new housing estates are not limited to affected local communities. The National Housing Audit undertaken by CABE found low quality design outcomes in both private market and social housing schemes. Of particular concern were projects in suburban contexts or on the edges of urban areas where

many larger new neighbourhoods are developed. Only 4 per cent of such schemes were rated as 'good', 52 per cent were considered merely 'average' and 43 per cent were marked as 'poor' indicating to CABE that they should not have been granted planning permission.

In CABE's assessment suburban schemes performed worse than the wider sample because of the need to integrate a wider range of elements to create a new place. In particular the survey identified the failure to create coherent, legible urban form and good quality streets as recurrent weaknesses along with the arrangements for car parking.

These poor quality outcomes are nothing short of a tragedy for a country with a heritage of creating World-class residential neighbourhoods and communities.

From the best of our Georgian, Victorian and Edwardian neighbourhoods to the efforts of the industrial philanthropists like George Cadbury at Bournville to the pioneering Garden Cities and Suburbs at Letchworth, Welwyn and Hampstead, Britain has led the world in creating beautiful neighbourhoods which have met the aspirations of successive generations and which remain popular and desirable today.

Despite this current practice remains focused on satisfying the needs of an increasingly bureaucratic and complex system. Projects have to comply with the standards and requirements not just of the Local Planning Authority but also with the guidelines of a host of other agencies, statutory consultees and stakeholders. Of particular importance are the requirements of Highway Authorities in relation to highway design, vehicle circulation and car parking.

Current approaches to housing layout

A new approach to housing layout has become established which works with these generally applied standards. This approach seeks to create a sense of place by bringing the building line forward to the street edge to create a more urban street scene with a greater sense of enclosure.

This model is conceived alongside a highway design approach which reduces the road width and uses twists and turns to reduce vehicle speeds. A fundamental objective of this approach is that cars are parked in rear parking courts within



Scheme A - Typical rear parking court layout

Rear parking court with small gardens
Sustainable urban drainage
4ha
137 homes
34 dwellings per hectare
1.5 parking spaces per home

A number of fundamental shortcomings are immediately apparent. In particular:

- the environment is dominated by hard surfaced areas. The objective may be to minimise the impact of cars in the street scene but the outcome is a neighbourhood with almost half of its area devoted to roads, parking and footways.
- the space available for private gardens is reduced

the residential street block. This approach to layout is illustrated in Scheme A.

This approach can produce attractive streetscapes and has been used in a number of award winning projects. However, there would appear to be an insufficient understanding of how the approach uses land (the basic raw material of housing production) and how it addresses other key planning and sustainability objectives.

Learning from the best of our past

This new model is significantly different to the most successful perimeter block approaches to housing layout which enclose rear garden space and locate car parking on the street or on plot to the front or side of homes. This approach was common throughout the Georgian, Victorian and Edwardian eras and was developed and applied in the design of the early Garden Cities, suburbs and inter war estates.

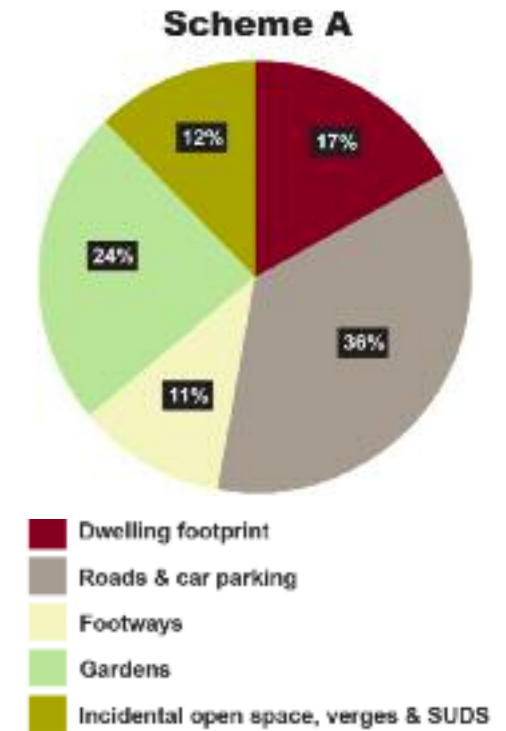
It was this model of the enclosed perimeter block that Unwin used to demonstrate the benefits of the Garden City approach to housing layout in *Nothing Gained by Overcrowding!* A notable feature of the block developed by Unwin was the inclusion of communal amenities for children's play and

and its value undermined by the adjacent parking areas. In this Scheme the average size of garden area per home (including both space at the front and at the back) is only 65 m²;

- the dominance of hard surfaced areas contributes to a heat island effect and creates requirements to manage more surface water run off with a Sustainable Urban Drainage system as shown.

The underlying weakness in this approach is that it adopts a very inefficient approach to car parking provision in which space needs to be provided not just for parking but also for vehicle access and manoeuvring.

Further problems with rear parking courts were highlighted clearly in a major study *Exploring the Impact of Innovative Housing Design on Crime*.



This study, "confirmed concerns that rear parking courts are vulnerable to crime. Rear parking courts had higher levels of vehicle crime and criminal damage than other types of parking, and also facilitated offenders' access to the rear of properties"

The research also "highlighted the unintended consequences of parking policies designed to move cars away from property frontages. Across the sample the behaviour of residents demonstrated a desire to park within close proximity to home; often by parking illegally on pavements".

Despite the fact that Scheme A would typically be the outcome of a lengthy design and regulatory process it is clear that it fails to produce an attractive and sustainable living environment.

recreation within the centre of the block.

The origin of this block layout has been traced by Professor Mervyn Miller to the masterplan for Brentham Garden Suburb prepared by Unwin in 1907. While only one side of the particular block was constructed, the layout included a number of larger blocks with a very similar form and dimensions to that illustrated in *Nothing Gained by Overcrowding!* This provides us with a tangible illustration of how the conceptual approach to layout shown in *Nothing Gained by Overcrowding!* was translated into the design of a highly attractive and much loved residential neighbourhood.

Scheme B illustrates how Unwin's Garden City approach to layout could be developed for application today. The layout replicates the straightforward and efficient perimeter block with cars parked predominantly on street to the front of homes. The larger of the two blocks includes (in addition) to private gardens a generous communal area for recreation, children's play, allotment gardens and an orchard.

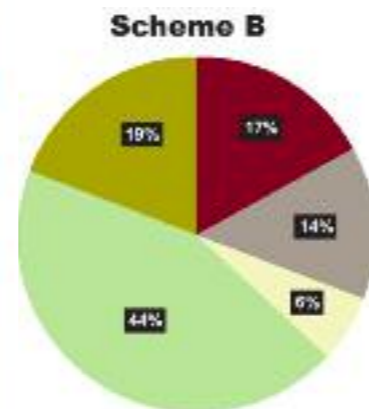
This would be shared and managed by the residents of the block and their neighbours who want to enjoy the space. The second, perhaps more typical block, features good sized gardens which run end to end.

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This article was originally published by the Town and Country Planning Association in April 2012 as part of *Nothing Gained by Overcrowding!* a centenary celebration and re-exploration of Raymon Unwin's pamphlet - 'how the garden city type of development may benefit both owner and occupier'. The full publication can be downloaded from the TCPA's website www.tcpa.org.uk/pages/nothing-gained-by-overcrowding.html



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- Dwelling footprint
- Roads & car parking
- Footways
- Gardens
- Landscape verge & communal open space

Scheme B – Re-interpretation of a Garden City Approach

- Attractive tree lined streets
- Generous space for gardens & allotments 4ha
- 120 homes
- 30 dwellings per hectare
- 1.3 parking spaces per home

The Garden City approach to layout turns many of the shortcomings of Scheme A into positives. In particular the neighbourhood benefits from generous garden space which provides opportunities for recreation, bio-diversity and wildlife as well as for mature landscape and trees which provide shade and cooling in summer. The area of garden space per home (excluding the communal area) is two and a half times larger than in Scheme A.

The gardens run end to end, or to adjoin the

communal space, within long street blocks giving good levels of security, providing opportunities for species migration and a rear outlook for residents into a large area of very high amenity. The garden and communal areas also provide larger areas for natural infiltration of rain water thus integrating a sustainable urban drainage approach as an integral part of the layout.

Gardens are increasingly recognised as important in terms of promoting bio-diversity and mitigating the effects of climate change, but they are also highly valued by residents.

A survey of what people look for in a new home found that "A crucial factor for homebuyers in choosing a house is the provision of outside space, and of gardens in particular. Over three quarters of the respondents preferred to have a private garden rather than sharing a communal

space with their neighbours". It would seem likely that this percentage would be even higher among those seeking a family home.

The green and leafy character of Scheme B is possible because it adopts a much more efficient approach to street layout and car parking. Overall it devotes just 20 per cent of its area to roads, parking and footways compared to 47 per cent in Scheme A. While Scheme A provides an extra 0.2 of a parking space per home it uses almost 20 per cent of its area for parking compared to just 5 per cent in Scheme B.

It is clear from this discussion that Scheme B holds many advantages over the approach illustrated in Scheme A. The question now arises as to whether it would be more costly to build to this better model as compared to that favoured by current practice?

The two models compared

Taking a similar approach to that followed by Unwin in *Nothing Gained by Overcrowding!* the table below now examines the implications of these different approaches in terms of some the development costs that would be associated with the two schemes. This includes the cost of land which is assumed to be £500,000 per acre (c.£1.2m per ha) and the cost of constructing and adopting residential streets and laying out parking areas which would be maintained by a management company. In addition it includes an allowance for a commuted sum to be paid to the highway authority to cover future management and maintenance of street trees, the construction of a SUDs area for Scheme A and the laying out of the communal open space in Scheme B.

This analysis is by definition indicative and different assumptions or different ways of accounting for costs would produce different comparisons. Nonetheless, it provides an

interesting illustration of how the different approaches to layout might be expected to influence development costs and thus the affordability of the homes.

It can be seen that the much larger area given over to roads and parking in Scheme A translates directly into a much higher development cost. As a result, even allowing for the lower density of development in Scheme B and the more generous provision of gardens, communal open space and street trees the indicative cost per home is lower in Scheme B.

However, the real difference between the two approaches becomes apparent when we then take into account the substantially larger plot size of homes in Scheme B. It can be seen that the cost per m2 is more than 40 per cent less for homes in Scheme B and more than 50 per cent less if one includes a share of the communal open space area.

Everything to be gained!

This analysis of different approaches to housing layout demonstrates that the Garden City approach holds significant advantages over a typical layout produced by current practice. It organises streets, homes and gardens in a much more efficient way so to achieve a comparable density of development while providing residents with substantially much more generous gardens, outdoor amenity space and tree lined streets.

Moreover, this better approach to neighbourhood planning translates into significant cost savings in the construction of expensive roads and parking areas so that the benefits of the Garden City approach can be secured at a more affordable cost. The Garden City approach to layout has a number of further significant benefits. In particular:

- It is a tried and tested approach which has produced places that have stood the test of time and which remain popular today. In planning for new communities it is very important to work with approaches to layout that are proven and robust.
- It utilises traditional and straightforward approaches to street and neighbourhood design that are far less elaborate than those commonly used today. This could bring many benefits, including the opportunity for more custom building and development by small or start-up building companies.
- It is well understood and widely admired. Taking a Garden City approach to neighbourhood design can enable more positive engagement with local communities over the design of a new neighbourhood and thus help to make the planning process more effective and efficient.

Bringing all of this discussion together, we can therefore conclude that Garden City planning principles can help us to unlock the delivery of attractive and sustainable neighbourhoods for the 21st Century. There is indeed everything to be gained by rediscovering of our tradition of creating world class Garden Cities and Suburbs. ■

Indicative cost of development for each scheme

	Scheme A	Scheme B
	With land at £500,000/acre	With land at £500,000/acre
Number of homes	137	120
Average size of plot	120m2	203m2 (253m2)*
Cost of roads, pavements & car parking	£2,725,000	£1,300,000
Commuted payments for street trees at £3,000 per tree	£60,000	£200,000
Cost of SUDS / Communal Area	£200,000	£200,000
Cost of land	£5,000,000	£5,000,000
Total cost per home	£58,000	£56,000
Cost of plot per m2	£480	£275 (£220)*

* Including an equal share of the communal space

Creating Garden Cities and Suburbs today

Will we seize the opportunity to leave future generations with a legacy of beauty and durability which truly meets the challenges of the 21st century? asks Katy Lock

It has been an extraordinary 12 months for the TCPA's campaign to re-ignite interest in the use of Garden City principles to deliver healthy, resilient and beautiful communities today. Since publishing 'Re-imagining garden cities for the 21st century' a report highlighting what we could learn from the garden city ideals in June 2011, momentum has gained - both politically and across the sector - and the Town and Country Planning Association is no longer alone in recognising the benefits of creating new communities along Garden City principles.

Following the Housing Minister's challenge to the TCPA to bring together experts and stakeholders from across the built environment sector to look at how the Garden City approach could be reinvented for the 21st Century in September 2011, November's Housing Strategy included 'locally planned large scale development' as an important way of creating long-term stability and increasing the supply of housing. In March 2012 the Prime Minister confirmed the Government's commitment to examine the opportunities offered by large-scale new communities in a speech on infrastructure, announcing a 'consultation later this year on how to apply the principles of garden cities to areas with high potential growth in places people want to live'.

Following this, there has been clear recognition of the 'principles of Garden Cities' in the NPPF, providing further foundation for the examination of the application of Garden City principles - in fact, it is the first time that Garden Cities have been directly mentioned in national planning policy for over 40 years.

Garden City Principles

The Garden Cities were underpinned by a famously strong vision, and the companies that built the first Garden Cities worked to the ideals of the Garden Cities and Town Planning Association (later renamed the TCPA). Our founder, Ebenezer Howard, described this vision in his seminal text on Garden Cities in 1898 "...the advantages of the most energetic and active town life, with all the beauty and delight of the country,

may be secured in perfect combination".

Over the last century these ideals have proven to be outstandingly durable. Today, we still face the primary challenges confronted by the early Garden City pioneers: meeting our housing shortage, generating jobs and creating healthy, beautiful and inclusive places. However, we now also have the new challenges of globalised markets and the urgent need to create climate resilient places.

With the strong acknowledgement of the Garden City principles emerging in the Coalition Government's policies it is worth re-examining the original vision - combining the very best of town and country living to create well designed and affordable homes for working people in healthy vibrant communities - in a new era of climate change, global markets and technological advancement.

Delivering multiple benefits through new communities

Creating new Garden Cities can provide the opportunity and the economies of scale necessary to truly fulfill the ambitions of sustainable development and healthy and vibrant communities by delivering multiple benefits including social housing, zero carbon design, low carbon energy networks, sustainable transport, local food sourcing and access to nature. New communities also offer a powerful prospect to put in place new governance structures that put people at the heart of developing new communities and owning community assets.

Through learning from past successes and failures of planning new communities, the Garden City concept and vision can be brought up to date with technological innovation, design concepts and materials to create leading-edge sustainable developments. The Garden Cities were fired by a sense of idealism and enthusiasm, pioneering new ways of living. Although initially led by private enterprise, the early partners worked closely with the public and voluntary sector. It is this working in a spirit of cooperation and innovation that should be re-captured.

A year in the life of the TCPA's Garden Cities campaign

June 2011: TCPA publishes Reimagining Garden Cities for the 21st Century

September 2011: In a response to the report, the Housing Minister, Grant Shapps MP, asks the TCPA to set up an expert group to look at Garden City principles today

November 2011: 'Locally planned large scale development' appears in the Government's Strategy for Housing

January 2012: TCPA establishes a cross sector expert group

March 2012: Prime Minister talks about a 'new generation of Garden Cities' in a speech on infrastructure and the NPPF is published including the first reference to 'the principles of Garden Cities' in planning policy for over 4 decades

April 2012: TCPA publishes a centenary celebration of Raymond Unwin's 'Nothing Gained by Overcrowding - How the garden city type of development may benefit both owner and occupier' in Parliament

May 2012: TCPA publishes 'Creating Garden Cities and Suburbs today' a report of the expert group



Katy Lock works with the TCPA Garden Cities and is a New Towns advocate



The Garden Cities and Suburbs Expert Group

In late 2011, as a direct response to Government's challenge for the sector to come together to show how the Garden City approach can be reinvented for the 21st Century the TCPA convened a Garden City and Suburbs Expert Group which published its first report in May 2012 'Creating Garden Cities and Suburbs Today'.

Drawing upon extensive feedback from two roundtable meetings of the Expert Group, the report is intended to be a catalyst for action by politicians, community and self-build groups, housing associations and house builders, investors and landowners, local authorities, and planners, spurring them to work together towards creating highly sustainable new communities based on Garden City principles.

While there is no 'silver bullet' solution to unlocking the potential benefits offered by new Garden Cities and Suburbs today, the Expert Group has identified the need for urgent action in five principal areas, to address barriers to the development of a new generation of world-class communities.

Recognising the powerful opportunities that large-scale new communities, such as Garden Cities, offer in helping to tackle the housing and employment crisis and creating a better quality of life, the Government must take the next step and provide clear and consistent policy and fiscal support to provide confidence among local authorities, communities and private sector investors alike. In the context of localism however it will ultimately be for local authorities, developers and communities to work together to decide on the most

suitable location and the size needed to provide a sustainable community that creates jobs, meets local housing need, and finances and supports the necessary hard and soft infrastructure required to enable a community to thrive and make sustainable lifestyle choices.

Local planning authorities should be encouraged by the appetite for cooperative initiatives already existing in their communities, supporting the development of new initiatives where they do not exist, and considering the benefits of applying Garden City Principles to contemporary development and regeneration projects.

Like the Garden City pioneers we must foster innovation in planning and design and make use of the rapidly advancing technologies available to us, applying the Garden City principles in new and exciting ways. Over the coming months the TCPA will be undertaking a number of initiatives to assist communities, local authorities and the private sector to understand the benefits, practical implications and tools necessary to consider Garden City principles when planning for the future of their area.

As national and local government consider how to meet growing housing and economic challenges - with the population is growing at its fastest rate for fifty years and yet housebuilding is at its lowest level since the 1920s - there is a unique opportunity to shape the future of the nation.

There is no doubt that we will build more homes. The question is whether we will seize the opportunity to leave future generations with a legacy of beauty and durability which truly meets the challenges of the 21st century. ■

London's Garden Suburbs - Garden City principles at the neighbourhood level

The TCPA believes that the principles of Garden Cities can be applied at a range of scales, including suburbs and inner city neighbourhoods as well as to larger new communities. In London, the holistic application of garden city principles at the neighbourhood level is clearly evident in the picturesque suburbs of Brentham and Hampstead. Here the (private sector) visionaries Henry Harvey Vivian (Brentham - from 1901) and Lady Henrietta Barnett (Hampstead - from 1906) drove the Garden City vision being applied in Hertfordshire at the time, to what were then the rural outskirts of London itself.

The skillfully crafted urban designs of (Sir) Raymond Unwin and Barry Parker with (Sir) Edwin Lutyens ensured a varied townscape and walkable neighbourhoods which included space for allotments, generous gardens and community facilities. These design principles are integral to the vision of a Garden City or suburb, and part of what makes them an attractive and familiar form of development. The desirability and cost of living in both Brentham and Hampstead today, attributed to the characteristics described above, belies the fact that these communities were very much embedded in the cooperative movement and designed to include affordable homes and provide shared benefits for residents through co-partnership housing models.

Today, the appetite for cooperative and co-partnership models of commu-

nity living is evident in pockets throughout the capital. The Transition Towns movement in Brixton and Hackney, the People's Supermarket in Bloomsbury, and Groundwork's numerous community open space programmes such as Capital Growth are just a few examples of this. London also includes what will be the UK's first urban Community Land Trust, at the currently derelict St Clement's Hospital in Bow.

As with the original Garden City model, the freehold of the entire St Clements Hospital site will be retained by a new Community Foundation (set up by East London Community Land Trust once it has been built). The Community Foundation will then use the ground rents it raises every year to reinvest money in the local people and the local area and for the betterment of this part of east London. The TCPA believes we should be exploring the potential of Community Land Trusts and other models and opportunities for communities to capture the value of development and have a chance for long term stewardship of local assets. In Letchworth Garden City, the income from the foundation set up to manage the town's assets uses them to maintain public areas and other facilities, over and above what the council provides. This income still supports a wide range of services, from running the local cinema, to providing a local health service.