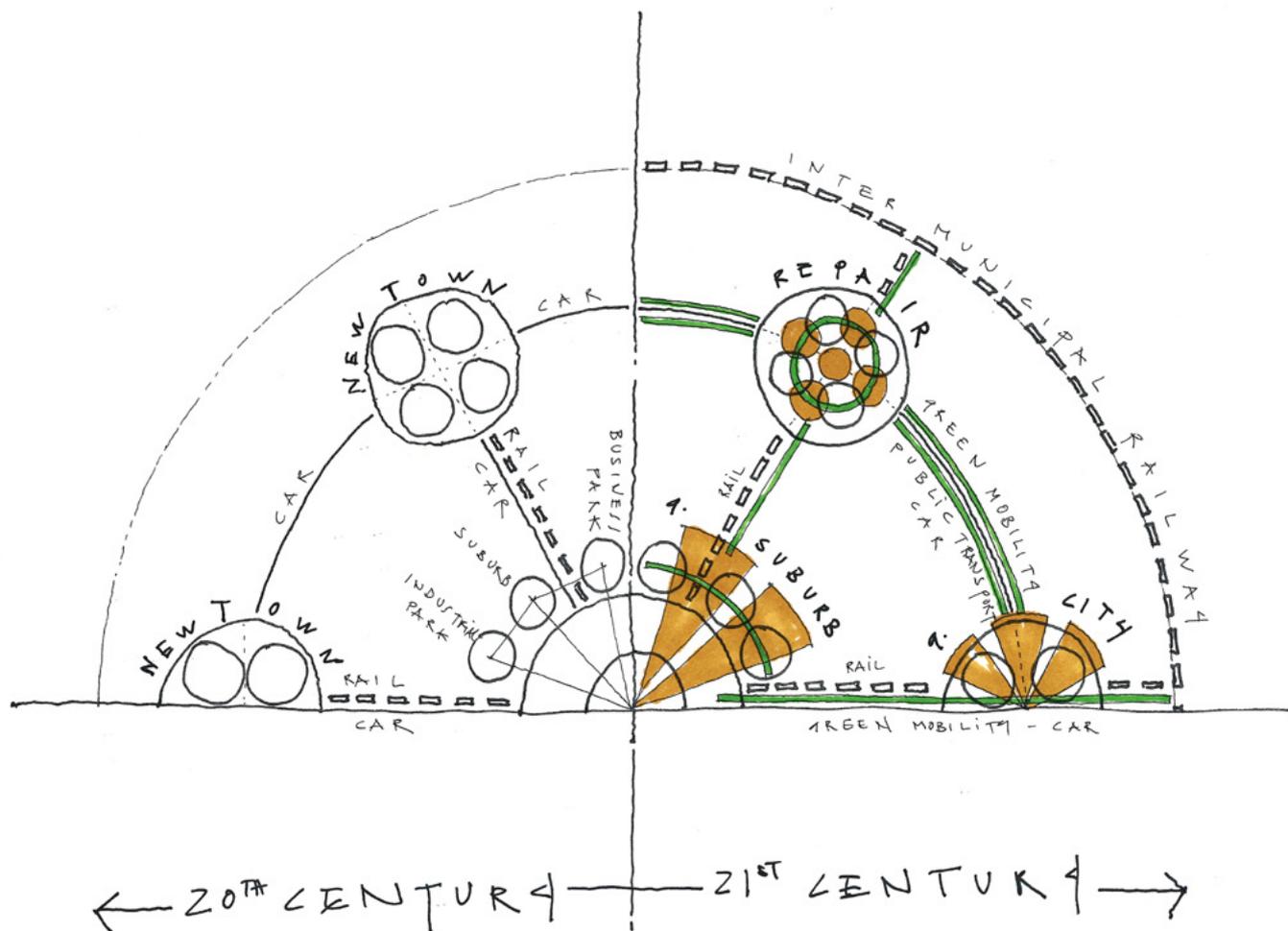


Garden Cities – Visionary, Popular and Viable?

Susan Parham, Anthony Downs and Gavin Murray with illustrations prepared by Pablo Fernandez



New Towns.....	Garden Cities
Business parks.....	Mixed use urban zones
Suburban sprawl.....	Garden suburbs
Urban voids.....	Urban repair
Motorways.....	Green mobility - public transport
Zone-based planning.....	Place-making

The International Garden Cities Institute

About the Garden Cities Perspectives series

This is the fourth of a series of 'Garden City Perspectives': in-depth research and policy papers being published under the auspices of the International Garden Cities Institute (IGCI). Through this series our intention is to open up opportunities for diverse viewpoints to be expressed about the history, contemporary practice and possible futures for Garden Cities - and planned settlements more generally where relevant. It is a chance to look at Garden Cities in depth with reference to the latest academic and policy perspectives across a range of themes - housing, place design, health, economics, accessibility, social and cultural aspects, governance and more.

Through our authors' analyses we intend that the Perspectives series helps to promote knowledge, increase understanding, generate conversations - and at times perhaps challenge assumptions - about what Garden Cities are or might be. We want to make clear that the views of authors in this series are solely their own and do not represent any official policy position of either the IGCI or its host organisations.

We hope you find this paper informative, stimulating, thought provoking and useful.

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Cover:

20th & 21st Century
Urbanism compared
2014 Parham, Downs,
Murray & Fernandez

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Perspectives Paper Summary

In this paper we explore the question: how can new Garden Cities which are visionary, economically viable and popular be delivered? We summarise our ideas here and expand on them in the main body of the paper. The paper updates and expands on a commended entry the authors submitted for the Wolfson Prize on building a new garden city.

Why Garden Cities matter

As one of the great success stories in making places that work economically and are also loved by their residents, workers and visitors, Garden Cities seem prime candidates for reappraisal. In a context of the urgent need for substantial new housing provision and increased economic activity to contribute to prosperity, it is evident that we need a very high quality of thinking and debate about why we should deliver new Garden Cities today – and how to do so.



1. Garden City Cottages, Hillshot, Letchworth Garden City

Taking a holistic view

Delivering new Garden Cities is as much about design, place-making and community development as economic viability, and in

this paper we bring a range of perspectives to the question. These perspectives come from urban design, planning, architecture, development, community engagement and place-making, as well as economics, because this is a holistic question, not a narrow, reductive or purely academic one.

Our vision

About vision we say that 'business as usual' or 'technological fix' solutions have not got us where we want to be in delivering exceptional new places to live and work, or in contributing to prosperity and growth. Garden Cities are a tried and tested alternative and a modern Garden City vision will combine Ebenezer Howard's principles with a systematic design approach using masterplans, transect systems, pattern books and design guides. Our vision sees these backed by financial and engagement approaches that work effectively within the present planning system, and reflecting unique regional and local place-making circumstances.

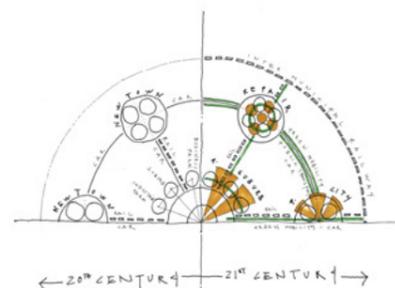
The vision argued for in this Perspectives paper is about meeting local needs and garnering local support in a 21st century context, with design that engages with local vernacular, and reflects local context, traditions and materials. Our vision is of meeting the same high standard of architectural quality in housing and place design as was achieved at the start of the 20th century (see Figures One and Two). The vision is of communities involved

from the start in creating inspiring urban design and development proposals using 'charrette' public engagement processes, not simply being asked to react to the pre-determined plans of others.



2. Design for a house in Letchworth Garden City By Baillie Scott - The International Studio, 1908

A knotty problem is where new garden cities, garden towns, garden villages and garden neighbourhoods should go. We offer a vision of not one but multiple models which advance the vision – stand-alone garden cities, garden city inspired towns and villages, garden neighbourhoods, and repaired garden cities on previously developed land. These are permutations that reflect the opportunities presented by the spatial, economic and political context we face. We rework Howard's famous diagrams to show how this would work on the ground.



3. Reworked Howard diagram

21st CENTURY URBANISM

Rural structure

Blue-green network

Compact settlement

Structured blocks enclosing streets

High streets with small shops

Connected streets

Mixed use employment areas

Structured urban space

Rural structure

20th CENTURY URBANISM

Rural sprawl

Green space

Sub-Urban sprawl

Unstructured block

Shopping mall

Cul-de-sacs

Business park

Sub-Urban sprawl

Rural sprawl



On viability

About viability we argue that delivering new garden cities can offer a fresh chance to overcome the problematic conventions and shortcomings of existing development arrangements. We suggest a series of specific ways to explore the key garden city principle of land value capture and make best use of money that is already being spent sub-optimally to develop new places, often of indifferent quality.

In a context of public spending restraint we argue for an approach that is predicated on market viability and driven by private sector players including landowners, champions, and communities themselves, but makes best use of leverage available through taxation and other financing and ownership instruments and models to support viability over the short and longer-term.

To support viability we propose to make optimal use of spatial assets we already have – redundant public land, private sector land holdings, opportunities from existing and planned transport infrastructure and energy supply – and ensure these are combined to help ‘de-risk’ and develop the best sites for new garden cities, towns, villages and neighbourhoods. We show how approaches which connect landholders and development partners who take a long term view can offer a workable basis for delivery. These can generate acceptable returns for both developers and

communities and include land value capture elements to varying degrees.

We demonstrate how existing budget allocations, tax regimes and more innovative financing models can be employed to good effect to support new garden cities, towns, villages, and neighbourhood ‘retrofits’ of existing dysfunctional places, without undermining the need for restraint. Tapered tax relief to encourage a more long-term approach among developers, the possibility of reanimating Enterprise Zones, the use of Community Infrastructure Levy and other ways to develop multiplier effects from garden city development are all part of the proposed mix. We show how viability is further supported through appropriate governance and management approaches, a range of ownership models and diversity in housing types and densities.

On popularity

The advocacy of champions is a necessary basis for delivering any new garden city, town, village or neighbourhood, to help garner enthusiasm and support among communities, but this will not be enough. We advocate very transparent engagement processes that put communities at the centre of things, which start *before* any decisions have been made, and avoid any backroom deals being done that show peoples’ views don’t matter. We demonstrate that popularity requires working with communities to decide *if*, where and how a city

should be delivered. Starting this process early is both an ethical and pragmatic strategy for increasing popularity and making sure the benefits outweigh the costs.

We argue that there are techniques which work to develop new settlements with communities, and we give a number of UK based examples from practice – in Scotland and in Hertfordshire – of using ‘charrette’ methods to successfully engage with communities on new settlement design and planning, in the process gaining their support. We reference engagement work carried out in Letchworth which showed how an informed ‘town debate’ connected to predominant support for growth, and a vote in favour by the town’s Governors.

Summing up

We do not pretend that delivering new garden cities, garden villages and other forms of truly ‘garden’ settlement will be easy or entirely uncontentious. The ideas and arguments presented in this paper demonstrate that it is possible to bring together vision, viability and popularity – building on time tested approaches and innovating in specific areas – to offer an approach that is fit for fast changing 21st century circumstances. New garden cities then, are not simply a pipedream, but in our view a realistic possibility for a more prosperous and liveable future.

21st CENTURY URBANISM

A Garden City according to “transect principles”.

Natural zone

Natural landscape with some agricultural use

Rural zone

Primarily agricultural with woodland and wetland and scattered buildings

Sub-Urban zone

Lawns and landscaped gardens surrounding detached single family houses

General Urban zone

Mix of houses and small apartments with some commercial activity; balance between landscape and buildings

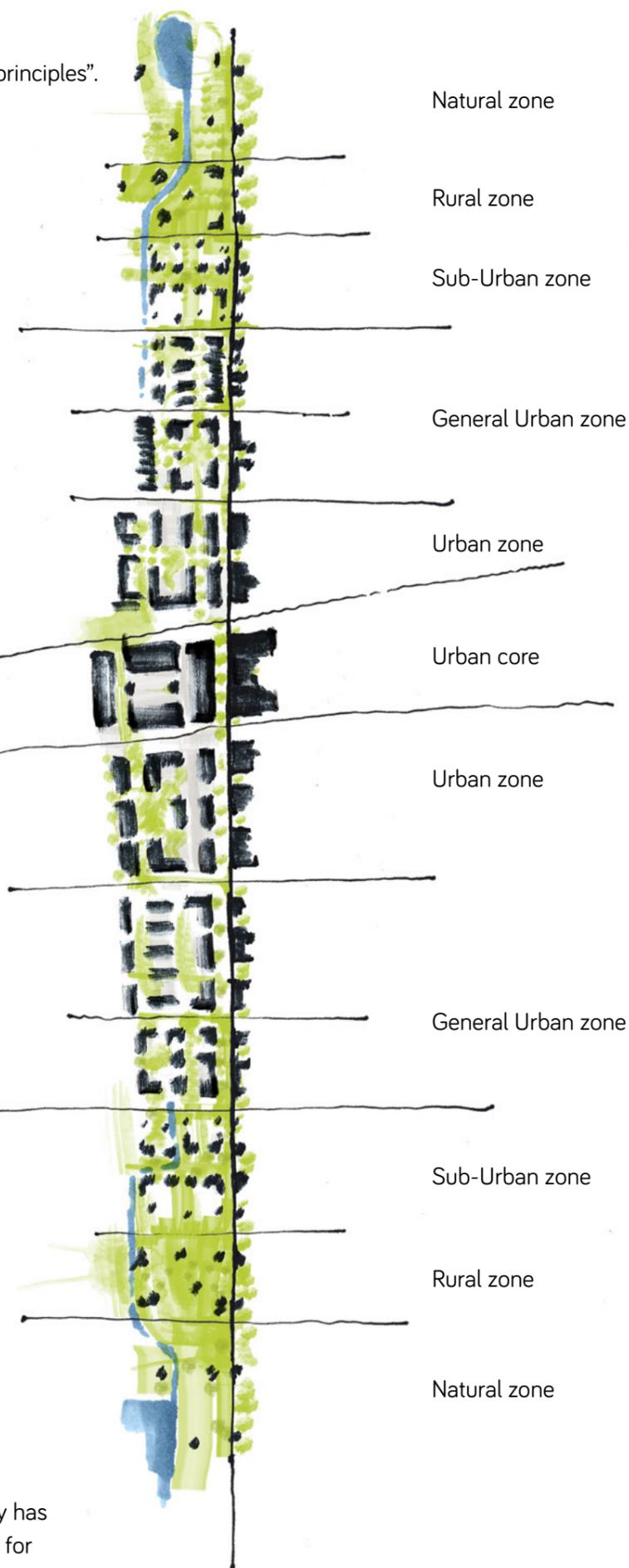
Urban zone

Commercial mixed with terraced houses, larger apartments, offices and civic buildings.

Urban core

Medium to high density mixed use buildings, entertainment, civic and cultural uses.

This urban-to-rural transect hierarchy has appropriate building and street types for each area along the continuum.



1.0 Setting the scene for new Garden Cities

Why garden cities matter

As one of the great success stories in making places that work economically and are also loved by their residents, workers and visitors, garden cities have recently been prime candidates for reappraisal. In a context of the urgent need for substantial new housing provision, increased economic activity to contribute to prosperity and critical issues in relation to sustainable place-making, it is evident that we need a very high quality of thinking and debate about why we should deliver new garden cities today – and how to do so. For us, then, this Perspectives Paper offers an extremely timely chance to combine both academic and ‘real world’ experience and expertise, and bring this to bear on how garden cities, towns, villages and both new and ‘retrofitted’ neighbourhoods can be created today.

Taking a holistic view

In our view those working in built environment disciplines are strong candidates to answer the question of how to build visionary, popular and viable settlements successfully today. To make places which are visionary, viable and popular – which Ebenezer Howard and his colleagues achieved at the beginning of the 20th century – we must bring a range of perspectives to the question from urban design, planning, architecture, development, community

engagement and place-making, as well as economics, because this as a holistic question, not a narrow, reductive one. Rather than providing an academic essay on the merits of garden cities and barriers to their delivery, in this Perspectives paper we have tried very hard to stick to the point – to as clearly as possible answer the question:

“How would you deliver a new Garden City which is visionary, economically viable, and popular?”

Our vision

About vision we say that ‘business as usual’ or ‘technological fix’ solutions such as those now mooted for so-called ‘smart cities’ have not got us where we want to be in delivering exceptional new places to live and work, or in contributing to prosperity and growth. A modern garden city vision will combine Howard’s principles with a systematic design, financial and engagement approach that works effectively within the present planning system and reflects unique regional and local place-making circumstances. We offer not one but three models which advance the vision – the stand-alone garden city, new garden city inspired towns, villages and neighbourhoods, and repaired garden cities on previously developed land – permutations that reflect the opportunities presented by the spatial, economic and political context we face.

On viability

About viability we argue that delivering new Garden Cities can offer a fresh chance to overcome the problematic conventions and shortcomings of existing development arrangements. We suggest a series of specific ways to make best use of money that is already being spent sub-optimally to develop new places, often of indifferent quality. We argue for an approach that is driven by private sector players including landowners, investors, champions, and communities themselves, but makes best use of leverage available through taxation, and other financing and ownership instruments and models, to support viability over the short and longer-term.

On popularity

About popularity we emphasise that advocacy of champions will be a necessary basis for delivering any new garden city to help garner enthusiasm and support among local communities, but this alone will not be enough. We advocate very transparent engagement processes that put communities at the centre of things, which start before any decisions have been made, and avoid any backroom deals being done that show people’s views don’t matter. We demonstrate that popularity requires working with communities to develop new settlements, and we give a number of United Kingdom based examples of using ‘charrette’ methods to successfully do so.

Charrettes are design based engagement process about the future of a place or even a whole city or region. Their usefulness is reflected in their increasing use in the UK including at a strategic county-wide level such as in [The Hertfordshire Guide to Growth](#) of 2008 and in reviewing progress through the Hertfordshire Guide to Growth - Five Years On of 2014. It is reflected in more locally focused examples such as the [Old Hatfield Charrette](#) and the Symondshyde and Stanboroughbury charrette, where [pre-charrette](#) and [post-charrette](#) papers explain the process and masterplanning ideas developed through community engagement. Its helpfulness is also demonstrated in the recent city-wide charrette processes for a new London Plan.¹

Equally important to our approach is making connections between these vital areas. Our short section ‘Delivering Garden Cities – drawing it all together’ therefore focuses on the critical points from each of these areas. It also includes examples of cross-cutting aspects where we think important delivery opportunities for new garden cities and other forms of garden city inspired settlements are to be found.

A good process

Exploring the question of how to make garden cities that are visionary, viable and popular has given us the chance to develop what we think are new insights, connections and synergies to add into discussion about developing new garden cities today.

Our intention is to help inform design and planning work, engagement with communities, and teaching and research, as well as supporting new garden cities in practice.

2.0 Making new Garden Cities that are visionary

What constitutes Garden Cities for the 21st Century?

The critical need to increase the supply of housing in the United Kingdom regardless of quality is resulting in a rush by local authorities to approve a rash of comparatively small suburban residential extensions. Even if some of these are now being badged as ‘garden’ settlements of various kinds that is often more image than reality. As a result of this quick fix solution – in various ways adopted since the 1950s – many of our existing towns and cities now have blighted suburban edges that are poorly integrated with the original settlement’s core and sprawl into the countryside (see Figure Four). As we discuss in detail later in the paper, some of these places themselves now need ‘retrofitting’. This means remaking their physical fabric from the scale of individual houses to broader area renewal – because of their poor quality housing and place design. This is a big ‘place making’ task for society that could be done in some cases according to garden city principles.



4. ‘Business as usual’ new housing in the United Kingdom

(but we accept not all) smaller extensions to cities and towns. There are, of course, challenges that need to be addressed, not least funding, opposition from public interest groups and loss of agricultural land.

Despite these difficulties, which we address in other sections of this paper, we feel it is possible to deliver garden cities and other types of garden city inspired settlements using a combination of elements: Ebenezer Howard’s design principles, a systematic design approach, managed effectively using masterplans, design codes and pattern books, with 21st century communications, energy, water, waste and transport infrastructures, but working within the present planning system.

Often the nature of the architecture has been the sticking point but this does not have to be the case. Together these elements can provide eclectic stylistic approaches to building design within broader urbanist principles. In this way a mixed-use development with good manners in architecture emerges which can deal with the pressures of the 21st century (see Image Five). Solutions that address the local vernacular, that engage with and inspire local populations; are based on low carbon producing approaches; offer good, affordable infrastructure and energy arrangements; and build in or make use of existing effective transport systems, can be developed quickly to address the present housing demand, but also support economic growth and social vibrancy.

Developing any sizeable community has its challenges, but there are also several examples of successful privately financed, market driven developments that are being built in the United Kingdom today under the present planning system and notwithstanding austere economic conditions. Poundbury



5. Housing at Roussillon Park designed by Ben Pentreath

in Dorset, started in 1998, is now well established, and Chapelton of Elsick near Aberdeen², which began to be designed only a few years ago, is now on site, with the first houses being built in 2014. It seems more than coincidence that there are several identical factors at work at each of these sites: an interested landowner with a clear, long term, legacy driven vision; a committed leadership team; strong and ongoing community engagement; and pragmatic target driven programming of development phases.

Looking at specific aspects of such place design, there are good examples to reflect on in the area of low carbon production. As the noted housing architect Ben Pentreath (2013) has pointed out, Poundbury has developed very good low carbon energy and waste solutions:

“On October 11 last year the first biogas from the Poundbury anaerobic digester was injected into the National Grid. The plant, adjacent to the housing and an integral part of the development plan as a whole, takes local slurry, food and farm waste and converts it into enough clean gas to supply the entire settlement. It is carbon-neutral, visually sensitive and commercially viable, and it is no surprise, given the history of Poundbury, that the prince’s biogas operation is the first such commercial plant in the UK.”

Addressing Local Needs through Architecture and Place Design

Views about what constitutes the ‘perfect’ garden city or other forms of garden settlement for the 21st century will vary from person to person and community to community. Most assume the solution will be similar to the architecture of the Arts and Crafts inspired Letchworth, Welwyn Garden City and Hampstead Garden Suburb (we showcased these in Images One and Two).

As a result some may see the idea of garden cities as an imposition of historic, outdated ideology and design; others as a positive return to traditional values and place-making solutions. In our view it is neither of these. Instead, the design approach we propose addresses local needs and produces a design solution that engages with the local vernacular. Such an approach achieves a consensus through a charrette

process (briefly mentioned above and described in detail in Section Four) with the local community and other stakeholders, which is the prerequisite for a successful development. As a result the design solution for each site will be unique; reflecting the local context, traditions and materials.

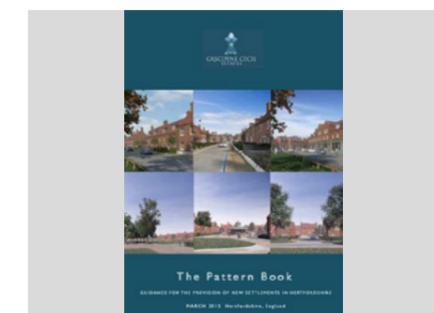
It may sound self-evident, but to garner sufficient public support, any future garden cities have to inspire the community of those already living and working in the area in which they are planned, and again we look at this in more depth in Section Four. In our view this is best achieved by researching specific local needs and ensuring the majority of the community benefit. Local involvement is critical, with an ongoing engagement process that addresses all the specific design issues that are important to the existing communities and allows them the chance to help develop and shape that design rather than simply react to it.

As a result future garden city, garden town, garden village and ‘garden’ inspired retrofitting solutions for neighbourhoods will differ greatly from place to place. These will be tailored to regional and local issues and needs. Instead of getting bogged down in the often divisive issue of architectural style, the focus will be less on ‘architectural dressing’ and more on design fundamentals. These include built form massing, mix of tenures, and existing site features as the key drivers of the design. These can be supported through codes and pattern books

as at Chapelton of Elsick and in an example from Hertfordshire (shown in Image Six).³

Historical design context and architectural style

Ebenezer Howard’s diagrams from his *Tomorrow: A Peaceful Path to Real Reform* (1898) brilliantly summarize his concept of ‘the joyous union of town and country’. While his guiding principles are



6. Pattern Book, Gascoyne Cecil

well over a century old, they are still highly relevant today. Howard’s primary aspiration, to improve the quality of life for all residents, was provided by a balance between town and country rather than a blurring together of these categories when designing and planning settlements.

Howard’s diagrams and writing encapsulate a basis for a successful community and show the spatial, social and economic interplay required between town, country, residents and commerce to design a thriving mixed-use city. This principle is still relevant and the basis for successful and sustainable garden cities for the 21st century.

Garden city designers and architects, Barry Parker and Raymond Unwin, were committed to the Arts and Crafts movement, as can be seen at the completed settlement at Letchworth Garden City and at a smaller scale at Hampstead Garden Suburb. Their very practical view of town and country resulted in mixed use, planned, walkable communities.

These communities were focused on town centres with well-defined civic spaces, and provided housing for a wide range of incomes and households. The Arts and Crafts influence on the crafting, careful detailing and choice of local materials for many of these houses in Letchworth and the neo-Georgian influence in Welwyn Garden City⁴ are clearly evident and remain very popular today (see Figure Seven below).



7. Welwyn Garden City Centre Post War

In our view Howard's principles still provide an appropriate framework for designing new garden cities and other types of garden settlements, while we should take a more eclectic view of the detailed designs that might be right for each settlement. We need to be open to a range of detailed design solutions to meet 21st century place-making requirements,

including for housing, energy, transport, air quality, waste, water and flooding among others.

As we argue above, design solutions should vary depending upon regional and local needs and will take on regional traditions and context. The house designs for Knockroon in south-west Scotland for example (see Figure Eight) are very different from those at Poundbury in Dorset in the south west of the UK, but each relates strongly to local vernacular traditions in their own area. What they share is making a positive contribution to creating liveable streets and areas. We believe one of the great strengths of the garden city model in design terms is its flexibility to respond to these altered circumstances. This does not undercut the universal strengths of places that focus on public space and on streets that has been underlined by a range of recent work such as that of Create Streets.⁵



8. Knockroon town extension

Reflecting 21st century criteria

Over the 20th century there has been massive urbanisation, different and more varied modes of public and personal transport and improved communications. As a result there are new pressures on both town and country, which result in the context of the debate rather than Ebenezer Howard's principles having to shift. Successful garden cities and other 'garden' settlements, fit for the 21st century must meet twelve criteria which have been usefully set out by the Town and Country Planning Association (TCPA). In relation to getting design right, we still think these are critical to any successful delivery of garden cities in future and are worth restating (see box).

1. The proposals must be inspirational and proposed by a strong leadership team.
2. There must be a strong vision following ongoing community engagement.
3. There must be land value capture for the benefit of the community.
4. Community ownership of land and long term stewardship of assets.
5. Mixed tenure homes that are affordable for all the community.
6. A strong local jobs offer in the Garden City itself, with a variety of employment opportunities within easy commuting distance.
7. High-quality imaginative design (including homes with gardens), combining the very best of town and country living to create healthy homes in vibrant communities.
8. Generous green space linked to the wider natural environment, including a mix of public and private networks of well-managed, high-quality gardens, tree-lined streets and open spaces.
9. Opportunities for residents to grow their own food, including generous allotments.
10. Access to strong local cultural, recreational and shopping facilities in walkable neighbourhoods.
11. Integrated and accessible transport systems – with a series of settlements linked by rapid transport.
12. Provide a full range of employment opportunities (as set out in Howard's vision of the 'Social City').

(Source: The TCPA, May, 2012).

Architecturally inspiring

New development proposals invariably result in a fair degree of cynicism which is a reflection of the poor standard of many residential developments over the past sixty years. To be popular, new garden cities need to be not just exemplary in a spatial design sense but get the process of developing that design right. We say more in Section Four about how designers and developers must engage thoroughly with communities through charrette processes which both capture their imaginations and develop designs which provide for their needs. But we also need to set principles for good design to inspire, and we list elements here we think are critical:

- A carefully thought out town plan, including public civic space and streets as places based upon features on the land
- Similarly proportioned buildings which are human-scale and future proofed, with a maximum of five storeys to avoid expensive, difficult-to-maintain technical solutions
- Design integrity to reflect local vernacular
- Building life cycle and sustainability to achieve low carbon buildings and places
- Carefully orientated and detailed buildings
- A limited palette of materials

with emphasis on those which are locally available

- Good design standards reflected in design codes and pattern books

Inspiring architecture is very subjective and a broad range of design solutions is to be expected and welcomed. Design should address different regional traditions and contexts. As a result new garden cities and other forms of garden settlements will require analysis and a survey of local exemplars. This will allow for replicating their form, proportions and materials, and should provide the ideal basis for integrating the best local elements into a design. This is not to say there is no room for focal points or features to provide contrast, but the desire for architects to always provide unique design solutions regardless of the surrounding context only results in a confusing and clashing street scene. And some things should not be debatable – Lifetime Homes standards⁶, and space standards like those pioneered by Parker and Unwin, and later by Tudor Walters, should be an essential part of any design.

As noted earlier, architectural style is often the most contentious issue among architects themselves rather than with local communities who predominantly express a preference for design solutions which use traditional architecture and detailing.⁷ We should therefore avoid confusing architectural with community preferences and deliver garden city design which is both highly popular and robust.

Unique site-specific solutions should result from the design engagement process, and generate not only regional variations but design that suits local people and places (see Figure Nine).



9. New infill housing in Old Hatfield as an example of locally responsive design with technical innovations for energy

Elements of good place-making

The planning system is often cited as a block on development and an impediment to good design outcomes but we believe that garden cities for the 21st century can provide inspiring spaces by a number of means within the existing planning system. The easiest, most reliable and most robust solution is to accept the following structural ‘framing’ elements within which considerable design freedom is possible. The basic framework elements in our view are:

1. A well-considered Masterplan – to define compact, mixed use, fine grained, human scaled, walkable and transport focused design proposals at settlement level
2. A ‘transect’ based system

(we discuss the elements this covers a bit later in the paper) – to ensure that density and other place-shaping elements are appropriate to location within the settlement

3. A place-specific pattern book – to ensure the details of design at area and individual building level are coherent and beautiful, by offering examples relevant to the location
4. Place-specific design codes – to set out the appropriate proportions, materials palette and other design elements for design coherence.

Just to ‘unpack’ these ideas a little we provide some details about each element, starting with masterplanning. A Scottish Government (Planning Advice Note 83, 2008: npr) definition of masterplanning offers a useful insight into what a masterplan does: “In broad terms, a masterplan comprises three dimensional images and text describing how an area will be developed. Its scope can range from strategic planning at a regional scale to small scale groups of buildings. Most commonly, it is a plan that describes and maps an overall development concept, including present and future land use, urban design and landscaping, built form, infrastructure, circulation and service provision. It is based upon an understanding of place and it is intended to provide a structured approach to creating a clear and consistent framework for development.

Whereas a development plan sets out the scale and type of development, and the key principles of character for a region, a masterplan is generally employed where there is a greater degree of certainty regarding the development of a specific site, and is linked to social and economic analysis and a delivery strategy. Although a masterplan may specify more detailed governing principles such as building heights, spaces, movement, landscape type and predominant uses, it does not necessarily preclude a degree of flexibility in designs within the plan.”⁸

We also suggest the use of ‘transect’ based design approaches to place-making. These are well used in the United States and better known there than in the United Kingdom. The Center for Applied Transect Studies⁹ describes a transect in the following way

“A transect is a cut or path through part of the environment showing a range of different habitats. Biologists and ecologists use transects to study the many symbiotic elements that contribute to habitats where certain plants and animals thrive. Human beings also thrive in different habitats. Some people prefer urban centers and would suffer in a rural place, while others thrive in the rural or sub-urban zones. Before the automobile, American development patterns were walkable, and transects within towns and city neighbourhoods revealed areas that were less urban and more urban in character.

This urbanism could be analysed as natural transects are analysed. To systemize the analysis and coding of traditional patterns, a prototypical American rural-to-urban transect has been divided into six Transect Zones, or T-zones, for application on zoning maps. Standards were written for the first transect-based codes, eventually to become the SmartCode, which was released in 2003 by [Duany Plater-Zyberk & Company](#).”

The transect has been described as

“An analytical system that conceptualizes mutually reinforcing elements, creating a series of specific natural habitats and/or urban lifestyle settings. The Transect integrates environmental methodology for habitat assessment with zoning methodology for community design. The professional boundary between the natural and man-made disappears, enabling environmentalists to assess the design of the human habitat and the urbanists to support the viability of nature. This urban-to-rural transect hierarchy has appropriate building and street types for each area along the continuum.”¹⁰

We visualize in the following diagram (see Figure Ten) how transect based design ideas would be applied in relation to shaping garden cities.



10. The transect as used for shaping Tornagrain New Town in Scotland

We also advocate the use of pattern books as an aid for individual architects and house builders to help make sure overall masterplanning intentions are reflected in good design of specific buildings and places. Thus for the Chapelton of Elswick masterplan for a new settlement in Scotland, a Pattern Book was developed which was designed to “govern the development of the first phase of Chapelton of Elswick and ensure that the new town is built in line with the aspirations of the Elswick Development Company.”¹¹

The Pattern Book instructions “articulate the principles of the Chapelton masterplan and provide detailed guidance on the street, block and house designs within Chapelton’s first phase. Materials provided include block plans, architectural plans, diagrams and regulations, all of which correlate with the Chapelton masterplan and its neighbourhood structure...by managing the scale, configuration and design of buildings within Chapelton’s first neighbourhood, this Pattern Book will ensure the harmonious relationship between the town’s buildings and public spaces and enable the development of an exemplar public realm.” (Chapelton of Elswick Pattern Book, undated).

In Chapelton, the masterplanners have been very clear about what the Pattern Book does, stating that: “Taking the varied needs of the different user groups into account, the Pattern Book will accomplish the following:

- Provide a framework that ensures that the town is developed in accordance with the principles of the masterplan and in line with the vision which has been established by Elswick Development Company
- Guide housebuilders and others involved in the physical construction of Chapelton by providing detailed specifications for each development parcel
- Give certainty to the local planning authority and local population over the nature of development which will occur at Chapelton and the specific delivery model
- Protect against any unacceptable development which does not adhere to the overriding principles of the masterplan.” (Chapelton of Elswick Pattern Book, undated).

The fourth element of this set of design tools is the Design Code or Guide which can be comprehensive, or deal with specific elements in design and conservation terms. The Commission for Architecture and the Built Environment (CABE, 2011: npr) has described a design code as “a type of detailed design

guidance that is particularly useful for complex scenarios involving multiple parties in long-term development. A code can be a way of simplifying the complex and often elongated processes associated with new development to give more certainty to all those involved and help to make high quality places. Code preparation can allow organisations and local communities to work together more effectively, helping to build consensus about what kind of place everyone wants to create.”¹²

As CABE goes on to explain, “Design codes vary mainly according to their level of prescription (what they fix and what they leave flexible) and the scale at which they operate. They can, effectively, set out ‘rules for assembly’ of a place. They are the instructions that tell you how to assemble the different parts of the plan. Preparing a code well is about finding a balance between technical specificity and a succinct description of what is required. Some of the best, most effective codes are very short” (ibid).

These are used very successfully in practice (see Figure Eleven) and in new garden cities design codes would provide guidance at a range of scales so that the different parts of the place – its houses, gardens, streets, neighbourhoods and town centres, for instance, all fit together well.



11. Gascoyne Cecil Design Guide for Shopfronts, Blinds and Signs, Old Hatfield

Where would these Garden Cities go?

The question seems to us to be about not just how garden cities and other kinds of ‘garden’ settlements can be designed and built but where they should be located. It seems likely in these egalitarian times, that the firestorm of protest that would result from truly garden city scaled proposals in the south east of England would render it politically impossible to achieve in a workable timescale. New garden towns, garden villages, and garden neighbourhoods, and repairing existing settlements in ways sympathetic to these principles, is however eminently possible. As we have seen recently, garden villages have indeed been the focus of government attention and support.¹³ We therefore suggest that three garden city models we argue for here be considered for delivery, depending on spatial, political and economic circumstances. These are:

(1) *Stand-alone garden cities* – We envisage new stand-alone garden cities as having most chance of political viability if sited in areas where they would not be perceived

as despoiling the landscape and would make use of existing transport infrastructure (extant, planned or reinstated) to reinforce a transport oriented development approach (Dittmar & Ohland, 2003).

The Hertfordshire Guide to Growth (2008: 18) says about Transport-Oriented Developments (commonly shortened to T.O.D.s) that these “are located within walking distance of rail stations or bus stops. Catering to both those who work in the vicinity and those who commute, T.O.D.s can lessen the general dependence on cars... Because these sites offer the ideal location for housing, they may justify the demolition of existing underutilised structures, even if it will add to the expense of development.”

The intention would be to make such garden city settlements economic and social attractors, just as Howard conceived in his proposal for the original garden city, which was predicated on drawing people voluntarily to it because of both its exemplary liveability and their poor existing conditions. This is not simply a speculative suggestion. There are less densely populated parts of the United Kingdom that have recently approved, and benignly welcomed, a large, new mixed-use, walkable community. The previously discussed development at Chapelton of Elswick near Aberdeen is designed and under construction and on completion and will provide 4045 units and around 50000sqft of commercial space. It is seen locally as a more

favourable alternative to the usual suburban residential and business park additions to the area around Aberdeen which contribute to sprawl. The local authority and residential community hope it provides all the housing allocation needed which in turn will alleviate concern by local towns and village about further residential extensions till 2023 and possibly beyond.

(2) *New garden towns, villages and neighbourhoods* – The garden town, village and neighbourhood models both provide the opportunity to tap into existing infrastructure while providing walkable, mixed-use developments that reflect garden city principles. Poundbury on the edge of Dorchester might be thought to fit into the neighbourhood scale of a new garden settlement type. It may be that in locations where a stand-alone garden city is not the right option for political or other reasons, garden neighbourhood inspired town extensions and/or a number of garden village settlements at a small scale can offer significant advantages and provide meaningful numbers of new houses and economic opportunities.

The possibilities for new garden villages have been widely discussed recently¹⁴ and as noted above government is supportive.¹⁵ In a recent article a co-author of this paper suggested that some garden villages might be located on revived rail lines closed during the Beeching era.¹⁶ Similarly, in relation to garden towns and neighbourhoods, a number of such proposals are currently proposed

or seeking planning permission.

Among the former is masterplanning work done for a proposed sustainable new Neighbourhood called Stanboroughbury, on the north western edge of Hatfield and a new garden village, Symondshyde¹⁷, to be located somewhat further out from the edge of the town. The Symondshyde Garden Village is proposed on land owned by Gascoyne Cecil Estates and CEMEX who commissioned urban designers Duany Plater-Zyberk & Company to generate a preliminary masterplan. The masterplan was then further developed through a public process including a charrette (see Figure Twelve). The aspiration is for the new area to be a mixed-use, pedestrian-friendly community that will be a model both locally and nationally.



12 Stanboroughbury and Symondshyde Post-Charrette Paper

(3) *Repairing existing places to garden city principles* – As shown in The Hertfordshire Guide to Growth (2008), which we noted above and discuss further in Section Four, garden city principles can be employed in the renewal and repair of previously developed land in all sorts of contexts from

hamlets to cities. We envisage garden city repair could occur at a number of scales from individual brownfields (former industrial) and greyfields (former retail and similar) sites to whole neighbourhoods and even entire settlements.

For example, certain post war New Towns, as well as being extremely expensive to build and maintain, have suffered significant problems with low quality, energy hungry housing stock, poor space shaping and in the north of England, low demand. There could be scope to consider staged redevelopment to garden city principles, at the level of the building, block, area and town. In so doing we would want to maintain their relative affordability and avoid the ‘tabula rasa’ approach used in the ‘Pathfinder’ renewal scheme demolitions that worsened blight effects and are now widely understood across the political spectrum as a terrible mistake.¹⁸

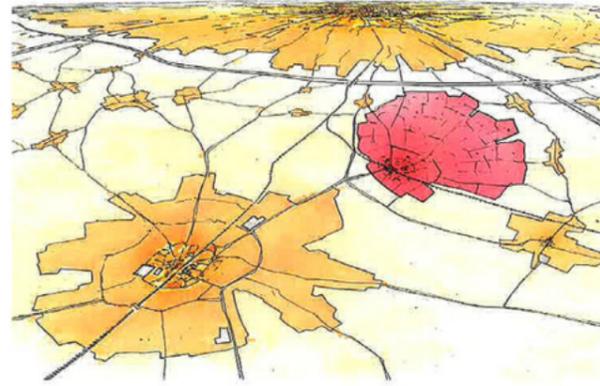
A stand-alone Garden City

Advantages

- Minimal impact on neighbours
- Rational provision of infrastructure
- High traffic capture
- Economies of scale
- Excellent jobs and housing balance
- Decreased trip generation
- Rational provision of facilities
- Provides strategic infrastructure

Disadvantages

- Diminishing of greenfields
- Complex planning process



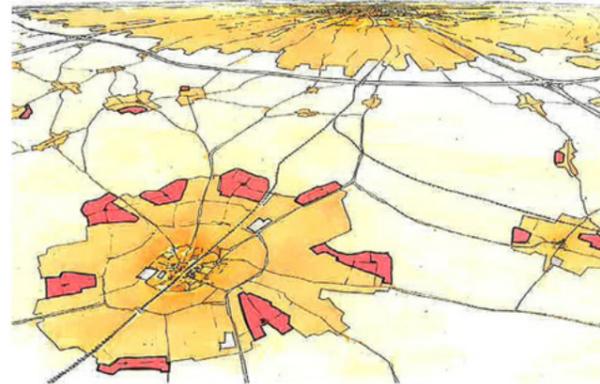
New Garden Suburbs

Advantages

- Equitable distribution of growth
- Sustains community facilities
- Integrated with transport

Disadvantages

- Could block existing green-field views
- Blocks access to Green Belt
- Impacts all communities



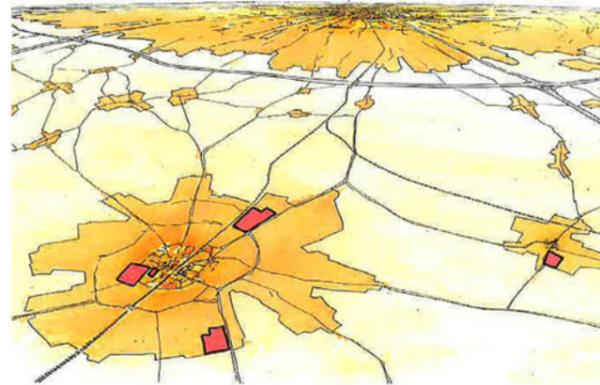
Repairing to Garden City principles

Advantages

- Conserves green belt
- Reuses land resources
- Reuses existing infrastructure
- Remediates contaminated land
- Transport based

Disadvantages

- Incurs additional clean up costs
- Removes industrial and commercial space



We suggest that depending on local and regional needs, the market economy and local vernacular, all three models are viable, practical solutions that can be tailored to local requirements, site conditions and locations. In Figure Thirteen we list some of the advantages and disadvantages of each, reflecting and building on scenarios explored through the Hertfordshire Guide to Growth (2008). All meet the primary principles developed by Howard of keeping the local community of country and town, residential and commerce in equilibrium to produce a successful and popular community. In this way the vision of combining the advantages of “the most energetic and active town life, with all the beauty and delight of the country” (Howard, 1898) can again be achieved.

In the next section we explore the economic viability requirements for this delicate balancing act.

13. Diagram of three garden settlement options - Source: Parham, Downs, Murray and Fernandez, 2014

Text adapted and illustrations sourced from the Hertfordshire Guide to Growth (2008).

3.0 Making new Garden Cities economically viable

Why current approaches are insufficient

Many of the issues which the garden city movement has sought to address since the early 20th century, arise from the shortcomings of typical, volume housing developments. Issues of inadequate and poorly designed and planned housing supply are related to the level of speculation in land and short-term attitudes towards the built environment. In many cases development is seen as a purely financial matter – and just about housing, not about making places.

New Garden Cities as a fresh opportunity

Looking to deliver new garden cities provides a fresh opportunity to revisit our current patterns of values about design, and build up a new outlook on making places fit for the future. Currently, planners, politicians, developers and householders frequently find themselves defending contradictory standpoints: affordability or quality; protecting agriculture or creating places to live. Building new garden cities and other kinds of garden settlements provides an opportunity to challenge a whole series of established conventions that development is necessarily of poor quality, reflects low architectural and design aspirations, and constitutes unacceptable sprawl into highly-valued landscapes and

agricultural land. New garden cities have the potential to both sharpen and potentially overcome points of conflict in financial as well as social and political arenas.

Why economic viability is so critical – and how to support it

Notwithstanding these present conflicts, economic viability is at the very core of the successful establishment of future garden cities. What makes this so very important?

Public spending restraint

First of all, the constraints on the public purse are such that it is highly unlikely Government will ever engage in a large-scale state sponsored programme of garden city construction employing a land value capture model, Government does have a role to play (see below) and this can take the form of assisting in areas which are beyond the scope of private developers and which are already part of Government's responsibilities for provision of public goods like transport infrastructure. If new garden cities are to be built then it is essential that they be able to withstand normal market forces. Ebenezer Howard understood this point very well, proposing that “in future years revenue obtained from higher rents [would] benefit the entire community rather than a handful of individual landowners: the income would amortise the money borrowed to start the garden city and eventually subsidise a whole

range of cultural and social welfare institutions” (Schuyler, 2002: 6).

Land availability

Second, the availability of land is of primary consideration in establishing any new garden city. While the landowner might take a variety of forms, the returns on offer must be sufficient to enable the present owner to consider withdrawing the land from its current use (e.g. agriculture) and making it available for construction of the new settlement. There are a number of examples where an enlightened landowner has been critical to the development of a new settlement as in the previously referenced Chapelton of Elsick. Similarly in the proposed Stanboroughbury Garden Neighbourhood and Symondshyde Garden Village, both on the north-west edge of Hatfield in Hertfordshire, new communities would be designed to follow Hertfordshire's garden city planning tradition.

At the new neighbourhood of Stanboroughbury for example, it is proposed that the settlement should include approximately 2,500-2,700 housing units, with the site developed at approximately 25 units/ha. Of these houses, 30-35% will be affordable, including units for rental and shared ownership. All of these houses are designed to sit within three pedestrian-friendly neighbourhoods, featuring shops, offices, parks and a school. The architecture will follow precedents in Hertfordshire and the wider region, and will most likely adhere

to the standards set out in the Gascoyne Cecil Estate Design Code and building on urban village concepts developed at the 2008 Hertfordshire Charrette in which houses, shops, offices and parks are integrated within a community framework. The land has now been adopted for development, and the site will represent the first major extension of Hatfield in the twenty-first century.¹⁹

At Symondshyde Garden Village the existing green features such as hedge rows, field boundaries, mature trees and footpaths provide the green framework for the new village's design. It is nestled into a green hollow making it largely invisible to other local settlements, while a green buffer reinforces its separation from existing settlements (Stanboroughbury and Symondshyde Post Charrette Paper, 2016: 13). The proposals include a primary school, village retirement community and space for civic and community buildings, with a village street for a cafe, small shops and a pub (op cit) (see Figure Fourteen). The village design also includes allotments for health and community interaction reasons. Access proposals include an improved exiting lane, and walking and cycling links to Hatfield a kilometre away.



14. Symondshyde Garden Village visualisation

Partners and stakeholders

Third, it may seem self-evident but is worth restating that future garden cities and other forms of garden settlement will rely on a number of partners and stakeholders in order to ensure successful delivery. In a similar way that the landowner will require a return, so too will other partners.

Market viability

Given these points, and mindful that all parties involved in the venture will be predominantly relying upon private finance, the model will need to be capable of demonstrating sufficient viability as to satisfy the requirements of private lenders. That means baseline viability must be defined as a demonstrable level of return which can be sustained over a period of years and which is sufficient to attract key stakeholders' engagement with the project.

It stands to reason that market viability will also be a key factor in deciding the location of future garden cities, towns, villages, and neighbourhoods retrofitted places to garden city principles. Put another way, these new places can only be successful if there is sufficient demand from occupiers – commercial, residential and institutional. If insufficient demand for housing and employment exists, then the rate of construction is likely to remain low, house prices and rental levels will be similarly depressed, and employers may struggle to attract a suitable workforce.

Location, location, location...

How can such viability be ensured in practice? For us there are some obvious lessons to draw from this analysis. One is about location. While it might seem logical to place new garden cities in locations which are presently sparsely populated, this may prove difficult to market and thus demonstrate sufficient levels of return for future success. We believe our 'three variants' model will ensure a better spatial and financing fit.

Making use of transport infrastructure

The availability of good transport infrastructure will be critical in deciding where new garden cities might be located, as we discussed in Section Two in regard to 'transport oriented development'. However major transport infrastructure investments are likely to be difficult for developers. It follows that locations which are close to existing public transport infrastructure, hubs and interchanges, or which might be easily linked to them, such as, for example, reinstatement of former rail links, should be strongly supported as potential sites through Government's infrastructure investment which will be taking place in any case through the UK's national infrastructure plan²⁰. This goes beyond cost alone. In our view Government also has the capacity to facilitate the crucial partnership working between all the agencies and organisations that would need

to work together to make this happen.

As we know, Government is already thinking about and making major investments to support our future economy such as major new rail connections, and our view is that the formation of new public transport interchanges or railheads for industry would very much support the attractiveness and sustainability of a new garden city location. As noted above, re-opening Beeching lines might offer some garden town and village opportunities.

A point about finance

Another point is about finance. Although, as we have argued, Government is extremely unlikely to be able or willing to finance wholesale construction of garden cities, garden towns garden villages or neighbourhood urban extensions and retrofits, it can assist in matters which are likely to be outside the sphere of influence or commercial operations of the developers of any future garden city. The funding being poured into garden city and town developments at Ebbsfleet and Bicester, as well as into supporting garden villages is an indication of that willingness. Here we are not talking about Government propping up otherwise unviable schemes or increasing spending. We see this help taking a number of forms which are already being provided within existing budget allocations, and reflecting the mainstream, legitimate responsibilities of Government in the national interest.

Government does have policy, fiscal and other economic mechanisms it can use to support a new garden city without undercutting its preferred low borrowing, small government approach overall. The current tax system is already used to support economic activity, and Government might consider a form of tapered tax relief to encourage developers to increase the rate of house building and to retain a medium to long-term interest in the development by way of rental or shared equity schemes. Any initiative of this kind would push developers to reconsider their existing short-term, sales-based economic and financing model and focus upon sustaining value for the future. This might encourage greater consideration of design and construction quality while also engendering developments with a sense of place – something that is extremely important when it comes to ensuring popularity.

Using what has been shown to work

We think it is worth looking at financing techniques which have previously worked effectively, as well as at new instruments. For example, Government might further encourage the construction of garden cities through the establishment of Development or Enterprise Zones similar to those which were successfully employed during the 1980s. These were used, for example, to encourage the regeneration of London Docklands and Trafford Park, Manchester. Keith Boyfield and Daniel Greenberg's work on

'Pink Planning' makes similar suggestions.²¹

Providing publically held land

Government agencies could further support the delivery of new garden cities, towns, villages, neighbourhoods and retrofits through the provision of land. Many Government agencies hold significant tracts of land and these holdings should be assessed for their suitability as sites for a new garden city. The Ministry of Defence holds many thousands of acres, some of which are surplus to its requirements (See Figure Fifteen as an example). Certain publically owned sites are already well served by road or railheads and arguably offer much of the baseline infrastructure required for establishing a garden city.



15. Redundant MOD land at Deenthorpe in Northamptonshire

Government involvement should not be seen purely as a cost to the taxpayer. For example, rather than representing a public liability, release of land from Government agencies would generate useful capital receipts for the Exchequer.

More broadly, Garden Cities can already be demonstrably shown to deliver substantial and ongoing benefits. At Letchworth, for example, the value that the town's governors accumulate through ownership of land and buildings provides rental income which is poured back into the City and provides a range of services and infrastructure support to its residents.²²

Economic multiplier effects

As we set out earlier in this paper we see the delivery of any new Garden Cities as requiring predominantly private sector and community led initiatives. It is worth reflecting on the economics and financing of existing Garden Cities, and much more recent developments in keeping with their principles, as we referenced in our section on Vision. The original Garden Cities of Letchworth and Welwyn, and more recent successful urban extensions including Poundbury on the edge of Dorchester, and Newquay in Cornwall, continue to attract international interest and generate many tours and visits from architects and town planners as well as academics and house builders.

To take the example of Poundbury, this Duchy of Cornwall development as an urban extension to Dorchester has been masterplanned by Leon Krier. It is relatively small by the standards of a Garden city, with 2250 homes (a substantial proportion of which are social housing sprinkled through the development) and

a population of around 4500-5000. Already, however, it is providing employment for some 1,660 people in 140 businesses. With the establishment of distinct neighbourhood centres, walkable and pedestrian friendly street patterns, traffic and parking provision that does not dominate public space, and a mix of uses and housing tenures, Poundbury arguably represents the most consistent and subtly designed urbanist development in the United Kingdom. The scheme has now reached a mature phase with the building of the South West Quadrant and the advanced status of the new retail and commercial centrepiece of the development, Queen Mother Square (see Figure Sixteen below).



16. Queen Mother Square, Poundbury

As a new settlement model Poundbury is much better in terms of economic vibrancy and wealth generation than the housing 'pods' that have blighted parts of the UK. Even at this small scale, Poundbury is already calculated to have contributed over £330million in demand for goods and services to the local economy and will have contributed £500 million by 2025. An economic assessment of Poundbury undertaken by Dorset County Council concluded that the

construction activity that had taken place in Poundbury since 1994, when the development began, has created the equivalent of 1,877 person-years in employment and 1049 business years of work for firms including the self-employed.²³ That assessment did not cover the activity generated by people working in Poundbury now, so is a significant under calculation of economic benefits.

International profile and its benefits

New garden cities have the potential to attract similar levels of international acclaim and to provide employment and training opportunities to all of those involved in the creation of the new settlement, as well as then providing very desirable settings for high levels of economic activity into the future. Quite apart from the economic benefits accruing in new settlements themselves, the expertise acquired in developing such Garden Cities will provide valuable knowledge as the basis for high value products and services related to development, engagement, design and governance processes among others.

This should benefit private companies in development, building, architecture, planning, and other forms of consultancy, as well as enhancing the capacity of academic institutions, and will be capable of export to other nations re-engaging with garden city principles. The extensive global reach of garden city principles, as well as developments inspired

by these principles, can therefore form the basis for some likely markets for such services (Parham, 2013).

Land availability and stewardship – development partners

As noted above, the availability of land is the most critical component for the construction of future garden cities. As in the case of previous exemplars, prospective garden cities will require the input of land from supportive landowners (or groups of landowners). We see this as perhaps one of the critical elements in making garden cities viable at least in the short to medium term. Many of the mechanisms listed by the TCPA (2012) in relation to de-risking development are considered necessary because land is such a difficult and expensive commodity to acquire. If we could ‘cut to the chase’ on the land availability side as has been done at Chapelton in Scotland it may be that such mechanisms would be rendered largely unnecessary.

The long-term nature of garden cities means that it is unlikely that projects can pay inflated sums for ‘marriage value’ if would-be deliverers are trying to assemble multiple plots. Nor will delivery be viable if it has to support the level of land prices typically paid for conventional, speculative, short-term developments. This would also undermine the possibility for any land stewardship along the lines of the original garden

city land value capture model. Landowners must therefore be capable of taking a longer view and be comfortable with the concepts of a lower, albeit sustainable and ongoing return, combined with a desire to champion a higher quality sustainable development that will leave a positive legacy for the future – as occurred when land was acquired to develop Letchworth (Ward, 2016). Landowners might take a variety of forms but the following examples suggest the kinds of owners who we envisage from past experience are most likely to be able to take this view.

Landed estates – as we have seen, new settlements such as that currently being delivered by the Duke of Fife in Scotland, and that developed by the Duchy of Cornwall at Poundbury and now at Newquay, have been able to use existing land holdings to deliver garden city inspired towns and urban extensions.

Government agencies – a number of Government agencies and semi-governmental organisations including health authorities are redeveloping former hospitals and other facilities. These offer substantial landholdings which could be appropriate sites for new garden cities, towns and villages. The Ministry of Defence is making use of former airbases and other redundant sites. For instance, the former Defence Evaluation and Research Agency (DERA) site at Longcross in Surrey will become a new garden village, while two further such villages will be located on former airfields: at Deenthorpe

in Northamptonshire (see Figure Fifteen) and at Long Marston in Stratford-upon-Avon.

Large corporates – business park owners and other big firms including retailers, also retain extensive, but sometimes redundant land holdings. This mismatch is made clear in relatively recent data. As Graham Ruddick noted in The Daily Telegraph (7 December 2013), “Out-of-town supermarkets still account for most new grocery space earmarked for the UK. So while town centre sites, proposed, approved or being built, account for 8.5m sq ft, the pipeline of out-of-town stores is 39.47m sq ft.” Again it may be that such retailers could become involved in consortia to deliver garden cities and other types of garden settlements on or incorporating their sites.

Achieving acceptable returns

A landowner’s decision to make their land available rests upon the ability to achieve an acceptable level of return through land sales to developers and to receive sustained income over a period of years from retained or residual interests. There are a number of models by which a landowner can unlock his or her landholding and deliver a development. The long term nature of landed estates can create severe challenges at times of succession from one generation to the next. Opportunities exist for government to incentivise such release of land for construction of new garden cities through amendments to the regulation of succession planning, inheritance

tax and agricultural property relief. In certain cases this would provide additional funding for reinvestment in maintaining existing heritage assets.

If the owner has sufficient capital for investment then it will be possible to fund the initial masterplanning, the passage through planning and the potential establishment of the site, as in the innovative and very successful Poundbury model (Pentreath, 2013). This work in itself will realise a substantial uplift in value as has been seen in the premium commanded by Poundbury’s housing stock. Not only has the housing for sale in Poundbury achieved a premium in the regional housing market and continued to appreciate in value, but as Ben Pentreath (2013) notes, most unusually the Guinness Estate social housing is also appreciating.

An ability to sell or lease ‘serviced plots’ where key infrastructure has been provided can reduce the risk to the builder and remove the usual barriers of entry to small and medium sized builders. Serviced plots invariably provide a greater return to the landowner compared to bare land transactions.

Development densities

Increased development densities can also increase economic viability but have often been presented as a trade off against social and environmental quality or between low rise and high rise development. The example of Poundbury again demonstrates that this does not have to be

an ‘either/or’ proposition. Often unpopular, high rise development is not required to achieve high densities. By building in narrow human scaled streets, compact mixed use, and tight housing blocks, but housing of exceptional beauty, quality and energy frugality, this garden city inspired area has substantially increased the yield from land over that of conventional subdivisions and managed to achieve a price premium. The development has both enhanced land values and improved its sustainability as a walkable place focused on local living and working, in part by increasing densities in a way that works for residents, economically, spatially and in a design quality sense.

Longer term, residual interests

Economic viability needs to be considered as about longer term, residual interests, not just short term profits. As noted earlier, a new garden city will require a landowner to make land available on the basis that they are content with the level of return offered by the new use. Return will vary in form – from receipts received where land is sold (either freehold or on long leaseholds). Under a lease, the ground landlord can look forward to a dependable stream of rental income and to get the improvements when the lease’s term comes to an end.

Alternatively, the landowner may retain an element of property interest within a garden city and from which they might derive rental income. Finally they may

retain certain other residual interests. These might include open space, ducting within streets (for use by telecoms or utilities) or the right to receive ongoing income from covenants. Where insufficient capital is available, the landowner might find a suitable joint venture partner, but the same ongoing income opportunities would apply.

As we discuss in the next section, developers should be attracted to the concept of a garden city due to the ability to engage in and market a popular concept.

Infrastructure costs

A key element in the creation of any future garden cities will be infrastructure costs. These will clearly be site specific and may in themselves play a significant part in the location of future garden cities. The strongest possible locations will be those which offer opportunities to undertake some initial construction whereby an income stream can be established from initial phases of development. This income can then be re-invested in subsequent infrastructure development.

Income opportunities

Any new garden cities will also have the capacity to generate specific income opportunities related to the particular site chosen. Certain sites might offer other income generating opportunities before establishing the construction programme. For example, mineral extraction or

restoration of worked sites may provide income, which can be used to offset or pump prime the cost of initial phases of infrastructure and construction.

The right governance and management models

Economic viability will also rely on getting governance and management models right. The success of any new garden cities will depend to a very great degree upon an ability to maintain a coherent vision, share both that vision and its economic benefits with residents, and ensure good standards of maintenance for both buildings and landscapes. Letchworth Garden City Heritage Foundation has shown convincingly over the long term that this is something of a virtuous circle.

As our previous section demonstrates, a great vision is central to success; but new Cities or other retrofitted garden based settlements need to get the economics right for this to be maintained. One of the challenges of sustaining a garden city vision therefore has always been to ensure a viable economic model by which settlements can be governed, managed and maintained for future generations. There is little to suggest this will be any different in future years.

There are two notable examples or models which we think are worth considering for any future garden cities. It should be emphasised that these models are not unique and several variations exist upon these themes.

The self-funding charitable organisation model

The first model is that established at Letchworth and which is sustained through the work of Letchworth Garden City Heritage Foundation. This is a self-funding charitable organisation which re-invests its commercial income from rents and property for the long-term benefit of communities within Letchworth Garden City while maintaining Ebenezer Howard's original ethos.

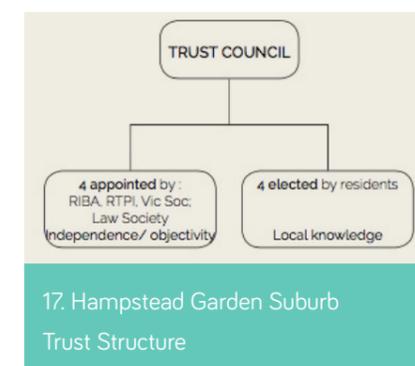
The Scheme of Management model

The second model is a Scheme of Management similar to that used at Hampstead Garden Suburb. The Scheme makes freeholders' contributions to the Trust's costs mandatory. The Trust thus has a reliable source of income and uses that to maintain an exceptionally high quality urban environment that in turn helps reinforce the economic vibrancy of the area.

The Trust operates under several sets of complex governing mechanisms related to its many responsibilities: it is a landlord, the operator of the Scheme of Management, a charity and as a private company limited by guarantee has its own memorandum and articles of association. The Trust's control is exercised mainly through the Scheme of Management. For special, fragile areas like this, subject to great pressures for change, the 'belt and braces' approach of the Scheme in

addition to TCPA legislation is justified.

In operating the Scheme the Trust charges its basic costs across all the 3,500 odd properties, levies specific charges for semi-private spaces to those properties which have use of them, and charges applications fees for the alteration of property according to a standard fee scale. It seems fair and reasonable that the residents, who benefit most from the work of the Trust in protecting the character of their settlement, should meet that cost and that it should not fall on ratepayers or taxpayers. That said, there is a potential wider public good in the work that these Management Trusts can do. Hampstead Garden Suburb has succeeded in recent years as an exemplar for posterity and not simply a wonderful environment for its current residents.



Ownership models

We envisage that new garden cities and other forms of garden settlements will need to rely on a variety of ownership models that allow a diversity of households to enjoy the benefits of locating here, while generating sufficient income to help sustain the garden cities, towns, neighbourhoods

and villages. We see this being configured as follows:

Freehold – a sufficient number of properties will need to be sold to maintain adequate cash flow for developers and provide an initial basis for financial return to the landowner.

Shared ownership – ever increasing house prices are making it more difficult for people to find a route on to the housing ladder. Shared ownership will allow people, who might otherwise be excluded, to participate in home ownership, through a shareholding in their property. The residual element may be held by either a developer or as route whereby the landowner can retain a long-term interest in the development.

Private rental – private rental properties might be offered through a combination of buy-to-let or properties held by the developer or landowner.

Social housing – affordable housing including that provided by social landlords will be an essential ingredient in ensuring a well-rounded social mix in the population and ensuring a range of tenures to all income groups.

Co-finance and co-operative self-build – the co-partnership movement was a key part of the early garden city movement, and we consider that a modern day re-interpretation of this model could assist in the delivery of future garden cities. Under this model, tenants would purchase shares in a company formed to

develop houses, which would be owned by the company or its corporate association, rather than by individuals. Dividends paid would give tenants a stake in the potential success of the venture.

Housing mix and mixed use

Mixed housing should ensure that affordable housing is largely indistinguishable from private housing and is interspersed with other tenures. This can remove the stigma traditionally attached to certain forms of rental property and help support a more cohesive community. Such benefits will reduce the high costs of anti-social behaviour often found within unmixed areas of social housing. Poundbury's example is instructive both in relation to its fine-grained mixing of its tenures, including 35% social housing, and because its Guinness Trust housing is so popular and well looked after that it is the largest scheme that does not require an on-site manager (Pentreath, 2013).

We believe that housing associations and new garden cities and other forms of garden settlements could prove mutually beneficial to each other. With average grants for affordable housing falling, and a sector that already has borrowing facilities of £69 billion against an asset base – mostly existing affordable homes – worth just £44 billion, associations face a further increase in their leverage. Many associations are thus setting out plans to become increasingly commercial in order to cross-subsidise the construction of affordable homes with private

sales. This funding arrangement could provide a key element of a delivery model for garden cities, tying financial viability very positively to delivering many wider social and community benefits.

Clearly, housing associations can only be one part of the overall funding equation. Other sources of finance will (and must) include banks, insurance and pension funds, sovereign wealth funds and other private funds. The critical element is for lenders to be prepared to engage in a longer-term model that offers lower, albeit reliable and steady, returns compared to the more highly speculative and crash prone models of construction which have proved less resilient.

The Community Infrastructure Levy (CIL)

Present constraints on public finance mean that Local Government increasingly looks to developers to fund infrastructure or community related improvements through the imposition of the Community Infrastructure Levy (CIL) or traditional Section 106 payments. In recognising many of the wider objectives of the garden city and some of the sustainable funding models, our view is that Authorities should be prepared to forego CIL or S106 payments in order that the development is not overburdened by statutory costs. Instead garden cities should be encouraged to provide their own infrastructure and a wide range of community facilities. A factor in determining viability then will be giving preference to sites where

a sympathetic local authority is likely to recognise this long-term economic perspective and thus financially support the development of a new city in this way.

As can be seen, opportunities to support economic viability connect to all sorts of aspects of delivering new garden cities.. But necessary as all these elements are, they are not enough to make any new cities a workable proposition. Perhaps most crucial of all is to answer the question about popularity - and in the next section we explore how we think that should be approached.

4.0 Making new Cities popular

Advocates and champions – necessary but not sufficient

It may seem facile to say that critical to the development of new garden cities will be the advocacy of particular individuals and organisations. Garden cities will need inspiring individuals who can champion their development with local residents and communities and garner local support for any new city or other form of garden settlement in their area. However, as has been seen in a range of examples relating to proposed new sustainable developments, this is not so easy in practice. The need for strong political and cultural support is clear and we envisage that nationally recognised figures with strong constituencies will be central to the process of making new garden cities go from vision into a reality. But individual leadership, however inspired, is not going to be enough.

Making engagement central to the process

We advocate very transparent engagement processes that put communities at the centre of things, which start before any decisions have been made, and avoid any backroom deals being done which show people's views don't matter. Our view is that the process of garnering local support needs to be given as much, if not more, attention as ensuring the exceptional quality of the garden city proposals in civic design or economic terms.

Starting early – an ethical and a pragmatic strategy

Ideally, therefore, local residents and communities should be involved and engaged from the very beginning of thinking about new garden cities. There is no point just telling people about what has already been decided – where a city should go or what it should be like – because that is sure to cause a backlash and make it very difficult to get any proposals through. Our experience tells us that both ethically and pragmatically, planning for new garden cities should be an open process with no 'a priori' assumptions: one of deciding with local residents and communities in the first instance if a garden city is a good idea locally before moving on to where, when or how it might be built.



18 Stakeholder engagement process in action

Techniques which work

Fortunately there are techniques in practice that show how good, open engagement processes can help with increasing popularity – showing residents how the benefits of a new City would outweigh the costs – and we want to share some examples of these with

you – especially in relation to garnering support. We think these methods work at both the strategic level – where people get together to work through requirements for garden city place-making for the future – and in relation to specific proposals for garden city inspired towns and villages on the ground.

About charrettes

Each of the examples we mention here used variations of what are known as 'charrette' techniques (Condon, 2008). These are sometimes described as just a glorified form of planning workshop but actually they are a process of engagement with people about development and place design (see Figure Twelve).

The charrette starts with mapping stakeholders and collecting baseline evidence, includes an intensive workshop, often over a number of days, and usually produces a range of documentation agreed by all the participants such as master plans and design codes which will guide any future development. Although these techniques have been used more in America than here, they are gaining traction as our examples show and as is recognised by the mention of both early engagement and design codes in the National Planning Policy Framework. To paraphrase, the charrette has been described in the following way in The Town Paper (npr):

A charrette is an intensive planning and design session where local communities, designers and others collaborate on a vision for development. It provides a forum for ideas and offers the unique advantage of giving immediate feedback to the designers. More importantly, it allows everyone who participates to be a mutual author of the plan.

How charrettes deal with conflicting interests

It is important to be clear that the charrette process has engagement at its heart and this in turn is critical in positively managing and working through conflicting views and perspectives. As the Town Paper (npr) explains:

Through brainstorming and design activity, many goals are accomplished during the charrette. First, everyone who has a stake in the project develops a vested interest in the ultimate vision. Second, the design team works together to produce a set of finished documents that address all aspects of design. w, since the input of all the players is gathered at one event, it is possible to avoid the prolonged discussions that typically delay conventional planning projects. Finally, the finished result is produced more efficiently and cost-effectively because the process is collaborative.

It might sound as though this kind of process will work when

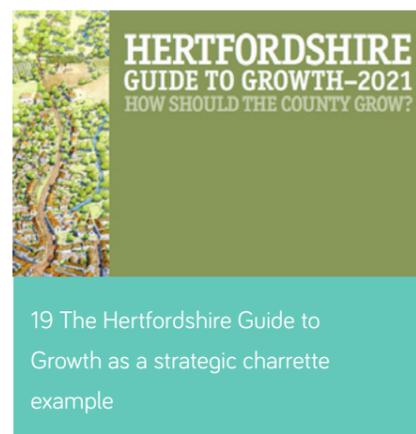
everyone agrees with each other but will not be much good on the difficult issues where peoples' different economic interests are at stake. But our experience is that it is exactly these contentious aspects that charrettes are so good at handling because they are organised to encourage the intensive, informed participation of everyone who has an interest in the future of a proposal (such as for a garden city as examples below demonstrate). That includes the developers, business interests, politicians and civil servants, interested residents, and activists who often otherwise take an adversarial position about any development.

Some charrette specifics

Because, ultimately, the purpose of the charrette is to give all the participants enough information to make good decisions about new development, the specifics of the process really matter. At any charrette everyone involved helps place designs to go through feedback loops from broad proposals to an agreed plan. And this is not about settling for the lowest common denominator – but about creating and agreeing the best design, planning and economic outcome for making a new place – informed by good evidence and acknowledging the validity of bringing different perspectives to the process.

This isn't just a theory or an academic exercise. It has been shown to work in practice. Nine years ago the University of Hertfordshire and its Chancellor,

Lord Salisbury, sponsored a county wide 'strategic level' charrette using these techniques. The Hertfordshire charrette was guided by the architect and master planner Andres Duany and involved a wide range of stakeholders with interests in the future of the county. The charrette workshop offered Hertfordshire residents and professionals the opportunity to work directly with a design team developing sustainable growth strategies.



That process produced the excellent *Hertfordshire Guide to Growth (2008)* which focused on six general 'Scenarios' by which the county might grow in the years until 2021, and concluded that the best option for future development in the county would be to build a new stand-alone garden city. As the Guide to Growth (2008: 24) noted: "A stand-alone garden city is the only type of Scenario which could accommodate the entirety of the housing allocation and the necessary amenities. The development would require a large, well-drained, relatively uninhabited area of Green Belt, with the potential for, or a pre-existing, railway station. There is at least one such site available in the county." ²⁴

A review of its findings in *The Hertfordshire Guide to Growth – Five Years On* (Parham and Hulme, 2014) found that certain structural things have changed in the way that the county is developed. However, engagement with planners, developers, politicians, designers and community members in the county suggests that the original judgment still holds about a standalone garden city being the most optimal development scenario (op cit); demonstrating that the charrette process was an effective way to define the best strategic options for growth for the future.

Charrettes 'on the ground' in Scotland

When it comes to work 'on the ground', a range of projects are underway at a very practical level, focused on the development of new towns in Scotland, sympathetic to garden city principles. One of the most interesting lessons from this work has been that the advocacy of landowners wanting to create new settlements has been absolutely critical to success, while the support of local and national government has also been influential in making a positive case for stand-alone new towns reflecting garden city principles, which local communities and residents can understand and appreciate. Some of these lessons have been captured in publications about The Scottish Sustainable Communities Initiative (2010).²⁵ That work has since led to more widespread adoption and mainstreaming of

these engagement principles and techniques through the development of 'local place plans'.²⁶

Among these charrettes was a process for Chapelton of Elsick, ten miles south of Aberdeen, where an intensive series of public charrettes, presentations and exhibitions was employed, to deliver Scotland's largest new town. There is a real pressure in Aberdeenshire, both for residential and commercial space, and speed of delivery was a key driver. The process started in 2010 with the first charrette – working with the existing planning system, it employed a masterplan, pattern book and design code. Within three years of its inception it began delivering a substantial number of houses within a 'garden city sympathetic' design and services including a shop and nursery.

Lead by the site's landowner, the then Earl of Southesk (now Duke of Fife), the local residents and neighbouring towns actively participated, and alternative outreach initiatives were also coordinated through local schools and community groups. As on other sites the landowner's personal involvement throughout was seen as a positive element in the process and was perceived as a quality control mechanism setting it apart from other commercial developments.

The charrette process offered an extremely open and transparent process by which residents could not only be persuaded about the merits of new development but

take an active role in determining how the benefits of a new city in the area would exceed the costs.

A relevant Letchworth case study

Another relevant recent engagement process worth mentioning in relation to the popularity question relates to situations where a new 'garden' neighbourhood is proposed. This example focused on the possibility of extending Letchworth, the UK's first garden city, through substantial new housing and related mixed-use development.

In late 2013, the Letchworth Garden City Heritage Foundation undertook a two-week open consultation and exhibition as part of a Town Debate with Letchworth residents on the question - *Should more homes be built in Letchworth?* It was made quite clear that the question about new homes was an open one and that the Board of Governors had not made up their minds whether to approve new development before consulting with the local community.

The Heritage Foundation actively sought views in a variety of ways through the town debate over two



Letchworth Town Debate Consultation Report
November-December 2013
Report prepared by Dr Susan Parham
Centre for Sustainable Communities
University of Hertfordshire
December 2013

weeks, and provided very detailed information explaining different aspects. These included the town's garden city development principles, reasons for posing the question about new homes, the timeline of planning work to date on these issues, and exploration of implications for existing residents and town infrastructure, services and finances of any decision to build more houses. 673 people from Letchworth visited the Exhibition, with 157 filling out sometimes very detailed comments cards, or made their comments by letter, email, through Facebook or on the Heritage Foundation's website.

As documented in the *Letchworth Town Debate Consultation Report* (Parham, 2013), the Town's Board of Governors was thoroughly briefed about the process and range of views expressed, and in an example of direct democracy in action, then voted on whether or not to develop over 1,000 new homes, with the majority in favour of new housing development. Of particular interest in relation to the question of garnering local support, it was clear that there was more support than otherwise for new homes to be built in the town, and that the process of engaging openly without a preordained view about the way forward had been critical in making this process a success.

Winners and losers?

Of course the opportunities and impacts from developing a stand-alone garden city would be uneven – some people would benefit

and others might feel they were worse off as a result, if, say, views were compromised, services were used by more people, or local roads became busier. But there are some techniques including the purely financial that could make the prospect of a new city more palatable. "For example, long-term residents could be offered three times the value of their home if they chose to sell out; or residents could be offered options over the shares in the developing body so that they had an ongoing stake in its success." (Wolfson Prize Prospectus, 2013).

The TCPA (2012), too, has shown very useful, proven techniques for returning value to community members from the creation and growth of garden cities, while in earlier sections of this paper we cited a number of more innovative ideas we think could be equally useful as part of an array of rewarding and compensatory mechanisms. In our view, these can play a valuable role in increasing popularity by showing that as far as possible the approach is based on being fair and can offer very specific benefits to individuals.

Creating more benefits than costs: four critical elements

Given these experiences we would distil down four critical things we think are required to help persuade people that benefits outweigh costs and to help make proposals popular rather than the reverse. These are:

Inspired advocacy – experience to date suggests this has come

from landowners (as in Scotland), those involved in governance (as at Letchworth), and those with a strong vision for the future in civic design terms (such as through the charrette for *The Herts Guide to Growth*).

Open engagement – engaging with local communities and residents before decisions are made to ensure that engagement is a completely open, transparent and educative process on all sides. Using techniques like charrettes will be critical to work towards the best holistic design, planning, economic and social outcomes – not the lowest common denominator that will always be opposed.

Being fair – recognising that outcomes will be uneven means that financial and other mechanisms need to be built in to the process to acknowledge and compensate those who would otherwise lose out through new development and to reward those who 'sign up'.

Learning from experience – analysing both successes and failures can teach us a lot about what innovations and more time-tested elements work and what don't. So it is important to document this and get that knowledge out to others who can benefit from it – as in *The Hertfordshire Guide to Growth* (2008), the *Scottish Charrette Series Report* (2010) and the *Letchworth Town Debate Report* (2013).

In the next and final section of this paper we review and summarise the critical points about making new garden cities that are visionary, economically viable and popular.

5.0 Delivering new Garden Cities - drawing it all together

Making new garden cities matters because in a context of the urgent need to create new areas to live and work we must do so in ways that support prosperity, are loved by their residents, and are broadly seen by the entire community as a positive addition to the United Kingdom's landscape.

This paper offers a holistic view that describes how to deliver new garden cities and other forms of garden settlement through creative rigour in design, place-making and community development as well as clever economics.

Our **vision** is about going beyond 'business as usual' mind-sets or 'technological fix' approaches, and instead combines Howard's excellent garden city principles with more innovative elements that reflect 21st century needs – in transport, energy, communications, environmental protection, economic growth, culture and social life.

A new garden city vision requires inspiring architecture and design to create great urbanism but at the heart its design is not about style but based on robust, time-tested principles and techniques including master-planning, the use of transect approaches, pattern books and design codes to make a great place. We offer three 'variants' that maximise location choice and asset use – a stand-alone garden city, town or village; a 'repaired' garden settlement; and neighbourhoods for edge of town extensions or retrofitting existing areas.

To be **viable** we say that the best strategy to deliver new garden cities is to challenge the shortcomings of existing development arrangements where this will be effective. Equally we propose to make intelligent use of strengths we already have, deploying existing funds, infrastructure and assets wisely – to develop the right location in market and spatial terms.

In a delivery approach led by private sector players, including landowners, investors, champions and communities themselves, we show ways to make best use of the opportunities offered through taxation, and other financing and ownership instruments and models, to support new garden cities that work 'on the ground'.

To increase **popularity** we argue that strong and inspiring advocates and champions will be necessary but not sufficient in themselves to ensure new garden cities are a popular idea and reality. Instead we say that engagement with people who have an interest in any new garden city – local communities and also wider communities of interest – needs to start very early in the process. This is both an ethical and a pragmatic strategy because good engagement makes development processes faster, not slower. Communities need to be involved in deciding if a garden city should be built before moving on to where, when and how it should be built.

We argue for using charrette processes or ones that are similar in principle such as Enquiry

by Design (EbDs) processes which have been pioneered by the Prince's Foundation. Our experience in new settlement planning and design in England, Wales and Scotland demonstrates that they work to help make places both popular and extremely well designed. And finally, we point out how excellent engagement process can help make for fairer outcomes where there are many more winners than losers – and those who suffer impacts are acknowledged and fairly recompensed.

It is very clear that these elements are closely **crosscutting**. For instance, new garden cities which have a vision which strikes a chord with people – of a walkable, mixed-use, human-scaled place with beautiful, well priced housing and excellent local work opportunities – will be much more viable if those who buy in as homeowners or institutional investors can see that values will appreciate – as they have at Poundbury. That in turn will make the new garden cities more popular; setting up a positive feedback loop of benefit to all. Similarly if infrastructure and services are properly developed (or reused or reanimated as we have suggested), this will make places that are at once more viable and more popular.

People will be attracted to a garden city that offers good schools, excellent transport links, affordable low carbon energy, great communications, and environmentally conscious systems such as Sustainable Urban Drainage systems – so-

called 'SUDs' that conserve water and protect from flooding.

We know that big ideas that are technologically driven have a surface glamour but we don't think they will work by themselves to deliver new garden cities in a realistic timeframe or budget – or create places people love. We take a less ideological view. We have to work from where we are, not where we would like to be. We strongly believe that we can work within the systems we have – financial, regulatory, planning, spatial, technical and social – to shape them toward delivery of new garden cities. Existing examples shown here demonstrate that.

In conclusion we believe that new garden cities, towns, villages and other forms of 'garden' settlements are both an exciting and a necessary prospect for creating new living and working areas which celebrate our rich heritage and offer an exemplary model for prosperous living in future.

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- ¹ http://www.newlondonarchitecture.org/docs/nla_insight_report_web_final.pdf
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- ²⁵ A report into this Charrette series can be viewed at <http://www.gov.scot/Publications/2011/03/16100049/0>
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About the authors

Co-author, Susan Parham is Head of Urbanism and Planning at the University of Hertfordshire and Academic Director of the International Garden Cities Institute.

Co-author, Anthony Downs is Director of Planning and Development at Gascoyne Holdings Limited.

Co-author, Gavin Murray is a founder and director of the architectural practice, Brooks Murray, founded in 1993.

Pablo Fernandez, who drew up the diagrams in this paper, is an Associate at Brooks Murray.

Acknowledgements

This Perspectives paper is based on the entry by Susan Parham, Anthony Downs, and Gavin Murray, with illustrations prepared by Pablo Fernandez, for the 2014 Wolfson Economics Prize, which asked entrants to answer the question about how they would make a garden city today.

Our entry was commended by the Prize judges and we believe that it contains a range of useful material that suits the aims of the Garden City Perspectives series. In the paper therefore we review that entry to explore the 'visionary', 'popular' and 'viable' aspects of garden cities.

We hope that our suggestions will help in creating new garden city settlements today.

We would like to acknowledge the very kind assistance of Mr. Josh Tidy and Mr. David Ames of Letchworth Garden City Heritage Foundation who have provided an enormous amount of help to bring this paper to fruition.

We would also like to acknowledge the sources for all the visual material cited in this paper and thank all whose images we have included to help illustrate this Perspectives research paper.

The International
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296 Norton Way South
Letchworth Garden City
Hertfordshire. SG6 1SU

enquiries@gardencitiesinstitute.com
www.gardencitiesinstitute.com

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