

**FROM THE INDUSTRIAL REVOLUTION TO SUSTAINABILITY DEVELOPMENT: THE ENDURING  
RELEVANCE OF THE PEACEFUL PATH TO REAL REFORM?**

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## INTRODUCTION

This paper considers the challenges of reinterpreting Ebenezer Howard's 19th century garden city concept in the 20th century and how that experience might help us reinterpret the garden city concept for China in the 21st century. I will do this by concentrating on four main issues: the diversity of historic responses to the original garden city idea, contemporary manifestations around the world, the fundamental values which give garden city thought its enduring relevance, and the opportunities and constraints confronting its application as a genuine paradigm of economic, social and design reform for Chinese urbanisation. The first issue highlights the adaptability of garden city thought at different scales. The second looks at some modern planning frameworks and developments which continue the association by affirming the relevance of new sustainable community building, including a brief survey of Chinese initiatives. Consideration of the third issue involves an enumeration of criteria by which we might affirm the garden city credentials of new developments. The final section is a reality check: just what are the prospects for Chinese garden cities closer to the Howard tradition. The underlying premise is that there is still some life and relevance in the garden city concept despite the extraordinary challenges posed by the scale of future urbanisation trends. The most compelling evolution is from the idea of the town-country magnet through the garden city to the new town and ultimately to the sustainable community (Hebbert 2004).

## THE ORIGINAL GARDEN CITY MODEL

The garden city project is arguably the most important source of planning ideas of all time. Green belts, neighbourhoods, civic centres, master plans, retail malls, new towns, and land use zoning all have part of their genesis in the ideas captured by Ebenezer Howard in *Tomorrow: A Peaceful Path to Real Reform* (1898) and the pioneering planner-architects who sought to translate them into actual places.

Howard's main preoccupations were with social and economic questions rather than intrinsically spatial ones. Howard was seeking 'the master key' to nothing less than a 'better and brighter civilisation' than that promised by the industrial revolution in late Victorian Britain. Urban overcrowding and congestion, rural depopulation, community power, civic democracy through self-government, equitable tenure, and good public health were major concerns. Land reform, in particular the strategic importance of enabling the community to capture the benefits of increased land values from development, was central. His book goes into extraordinary – if now completely dated – detail about how things could be done. Howard was a practical inventor rather than a dreamy utopian.

Peter Hall once described Howard's self-drawn 'town-country magnet' as 'the most famous town planning diagram' ever. Howard presented garden cities as a third magnet to urban and rural life, with none of their drawbacks and 'all the advantages ... secured in perfect combination'. The values expressed in the third magnet capture the various social concerns he wished to address: housing affordability, a sense of community, full employment, a high amenity living environment, access to nature – all goals that are just as pertinent today and underscore the continuing relevance of studying Howard. He was neither a high theorist nor an unrealistic crank. He strove for the middle ground and couched his ideals in a way which appealed to an emergent planning profession whose whole *raison d'être* was frequently about securing a reasonable balance of societal objectives.

The form of Howard's new civilisation was a planetary system of new urban worlds reproducing themselves by popular demand throughout Britain and across the seas. These endlessly replicating compact 'home towns' would not only be places with gardens, public and private, but would also be set in a garden, that is against a backdrop of green, productive agricultural land, natural features, and low density rural institutions. He called this the social city – it was a spatial form that expressed his philosophy of social individualism – enhancing individual rights but associating them into collective responsibilities to promote the possibilities of social and cultural interactions. Indeed, it was associated groups of people and private companies that would implement this new civilisation, not the state, which he mistrusted.

## APPLICATIONS

Twentieth century traces of the garden city idea can be followed through diverse expressions in many different socio-economic, cultural and environmental settings. While the complete package was never adopted, unmistakable elements are evident at the regional, new town and garden settlement scales.

At the regional scale, Howard bequeathed the legacy of metropolitan strategies based on satellite and

new town expansion. In the 1902 revised edition of his book, entitled *Garden Cities of Tomorrow*, he dropped the diagram of 'slumless, smokeless cities' and substituted a new diagram for the 'correct principle of a city's growth'. This conveyed a growth management model that legitimised the concept of the new-satellite town. In the social city cluster, the central city in the middle came last. Here it was more easily interpreted as coming first and progressively decanting its future growth not in sprawl but smaller cities each 'in a zone of country of its own'. The British architect-planner Raymond Unwin, whose career was made by the garden city, translated Howard's thinking into an even more influential statement on the merits of cellular urban growth in *Nothing Gained by Overcrowding* (1913). There are numerous applications of the 'planetary' model of planned metropolitan form from the 1910s onwards, with Patrick Abercrombie's Greater London Plan 1944 being the quintessential statement. The model falls away in the 1960s either overtaken by the metropolitan tidal wave of post WW2 population growth or displaced by alternate corridor or linear city forms.

Of singular garden city settlements, Letchworth was and is the most outstanding. It was Howard's first 'working model' and evolved as the world's first mainstream planned suburban town owned and managed by the community. It is described by Hall, Hardy and Ward (2003) as falling short of Howard's vision but still offering 'a better environment for living and working than most (if not all) other places of a comparable size'. Welwyn was a second garden city started by Howard personally at huge financial risk in 1919. Curiously, it retreats from his idea of a new urban system. It is in effect a second one-off experiment to convince people to leave London and start new lives in the country. These bold experiments helped stimulate more comprehensive state-driven new town programs for metropolitan overspill and as regional growth centres, including the American greenbelt towns of the 1930s and the British New Towns from late 1940s.

Garden suburbs were the most popular expression of the town-country magnet. They were the antithesis of Howard's idea of stopping big city growth, but nevertheless created opportunities for visibly progressive new standards of planned everyday environments. They were arguably the most literal manifestations of the achievements of the early movements for town planning, environmental improvement, and social reform. The best of these garden suburbs-cum-settlements around the world express distinctive planning and place cultures.

While this braiding and diversification of the garden city into diverse forms may have been eroding its original core values, they still capture the great flexibility and malleability of the concept. But sometimes the results bore no meaningful relationship to the original aspirations. Many 'garden cities' were ordinary speculative developments which appropriated the label as a marketing device, a practice that continues today in other ways as well (e.g. witness how 'sustainability' and 'community' have become catchphrases for developers and promoters). More ominously, the ordered geometry of the social city was appropriated by the Nazis as an instrument to replan conquered territories in Eastern Europe (Ward 1992).

Throughout its lifetime, the garden city has been criticised. One of the first reactions in Howard's time was of a fine scheme for Martians. It has continued to be a contested concept through the years, criticised by proponents of other kinds of urbanism. British architect-civic designer AT Edwards in the 1910s and 1920s despaired of the 'monotonous diffuseness' of house-and-garden residential forms. He was also a critic of Le Corbusier's radiant city, arguing that both concepts did away with the complex grain of urbanity of the real city. These arguments were taken up by Jane Jacobs in the early 1960s (Jacobs 1962). Jacobs felt these forms of modernist planning, at least when applied too literally or at a massive scale, created sterile, simplistic environments. She was right, although as others took up the cudgels it meant that the garden city got linked, way too seamlessly and ahistorically, to technocratic if not totalitarian impulses. The critiques have endured. Alexander Garvin in a provocative paper to the 1998 American National Planning Conference argued that Howard's proposal was 'as irrelevant as it was in 1898' (Garvin 1998).

Nevertheless, others have seen a continuing pertinence, if not quite panacea. The most articulate spokesman is undoubtedly Sir Peter Hall, who sees Howard's prescriptions as still 'extraordinarily useful'. His book *Sociable Cities* (2000) with Colin Ward has been described as a 'milestone' in the continuing campaign to push town planning toward principles of environmental sustainability based on garden city ideas (Hebbert 2004). Its centrepiece is an update of the Town Country magnet for modern times.

## **CONTEMPORARY INTERPRETATIONS**

Central to the enduring power of garden city thought are its 'timeless ideals' such as integrating town and country, human scale settlement, and community empowerment. The case for new communities in the

desired mix of urban development strategies is compelling. Pacione (2004) draws up the following list in the British context:

- accommodates development pressures from decentralisation & counterurbanisation
- channels decentralising populations into planned locations
- meets an identified shortfall in housing land and dwellings
- reduces pressures for piecemeal development and over-development of existing settlements
- provides cost-effective investment in infrastructure and other facilities
- provides a more economical use of land and other resources
- minimises the environmental impacts of urban growth
- provides opportunities for balanced housing and employment growth
- ensures continuity of supply of development land facilitating competitive house prices
- provides a high quality of design and layout
- provides opportunities for creating socially mixed communities
- avoids town cramming and loss of urban green space
- caters for revealed residential preferences

These play out at different scales. On the one hand there are the garden suburb-type developments at a micro level: a far cry from completely new towns but the best of them incorporating innovations and breakthroughs in sustainable planning on environmental, social and economic grounds. On the other hand, there is the mainstreaming of the principle of polycentric city development, an idea literally descendent from the social city. Hall and Ward (1998) for example advocate a modern application of the town cluster in the form of development corridors along which would be compact settlements served by high speed rail links with protected tracts of landscape in between. The bigger context here is the so-called 'portfolio approach'. Paraphrasing Hall (2003): outside the city, greenfield small mixed-use units, perhaps housing 20-30,000 people ('garden cities') in linear formation along public transport lines; while inside the city, brownfield redevelopment of medium density, combining residential and other uses, and focused on public transport interchanges ('urban villages'). The effect allows the city region to 'grow progressively into a polycentric city region within which each part has a high degree of self-containment but each is highly networked to all the others through efficient public transport and high quality ICT links'. Similarities to the regional social city-like visions of Breheny and Rookwood (1993) and the transit-oriented development of Peter Calthorpe (1993) are evident.

New national, regional, area and locality projects which variously pick up on and update, if selectively, the micro, meso or macro scale of Howard's thinking can be canvassed.

At the local level, there are definite connections with the new urbanism in both design terms and as anti-sprawl response. It is no coincidence that Andres Duany was invited to contribute a preface to a new edition of Raymond Unwin's classic *Town Planning in Practice*. He describes the book as documenting 'still the most important and useful instructions for the design of neighbourhoods and new towns' (Duany 1994). It is another matter whether the fundamental social aspirations of the historic garden city are actually met by new look up-market master planned communities, although to be fair there are also regeneration projects for troubled neighborhoods which also seem to draw on the nexus between the garden city and the new urbanism (Calthorpe and Fulton 2001). Other suburban projects with garden city connections contain lessons relevant elsewhere. For example, Lightmoor within Telford New Town in England is an attempt to create a sustainable community with a variety of land uses, housing types and tenures in an environmentally responsible way. It is a co-venture between English Partnerships (a national regeneration agency) and Bournville Village Trust (with its historic link to the original industrial garden village). The development has been described as an 'archetypal exemplar project of sustainable living and working in the 21<sup>st</sup> Century'.

At various times new national policy manifestos arise which also have the ring of the garden city (although they are inevitably more multidimensional than that). One of the notable examples is the British sustainable communities plan (UK 2003). The Plan sets out a long-term program of action for delivering sustainable communities in both urban and rural areas. It aims to tackle housing supply issues in both high and low demand areas, as well as the quality of public space. Major funding is going into affordable housing programs through regional planning frameworks, development corporations, planning reviews, and other regulatory reform, but the major accent is on private sector investment. The scheme is wide ranging but new and expanded communities are part of it. The Deputy Prime Minister has explicitly invoked the relevance of garden city ideals:

Ebenezer Howard called his vision the Social City – a neat, geometric arrangement of Garden Cities anchored in the countryside and linked by rapid transit. His illustrations look quaint today, but the basic message – that people need to live in better places, not just better homes – remains powerful today ... Howard knew the value of balanced communities in which homes, jobs, and a decent living environment are planned together (Prescott 2004).

At the regional scale, the move towards rationalising development within a polycentric framework is also in the Howardian tradition. From the early 1990s in Tokyo, multi-polar metropolis thinking has superseded old satellite and greenbelt conceptions through a combination of metro government policy and market forces (Sorenson, 2001). The new Tsukuba Express Line, which opened in August 2005, has provided the opportunity to extend this thinking, with new stations as foci for new city development in a program involving both national and local government. The scheme is similar to a Transit Oriented Development program in Perth, Western Australia. This is a State Government cross-portfolio program managed by the WA Department of Planning and Infrastructure. It is transport-driven, but includes the redevelopment of existing railway stations and establishment of planning frameworks and land protection for network extension. The State Government's Development Control Policy (DC 1.6) is binding on local councils to promote public transport and ensure the optimum mixed and higher density use of land close to railway stations and transport interchanges to secure more sustainable urban forms. It has been described as 'one of the most innovative policies of its kind' in Australia and the United States (Renne 2005). In the Philippines, Calthorpe and Associate's master plan for 'Green City' in metro Manila is also a textbook application of TOD at a regional scale with walkable mixed use neighbourhoods conceived as the primary building units (Taecker 2002).

What of the Chinese scene? A range of impacts and interpretations is evident. Historically, from the early 1900s, various projects to the present day align with the three major eras of Chinese city-making: the treaty port and republic era open to outside transplantations, the homogenous socialist city of the Maoist period, and the post reform project-driven globalisation period (Wu 2002). Hence there is a scatteration of historic and contemporary interpretations, including:

- Elements of garden city planning as a physical design approach in many cities and suburbs all periods, e.g. open space and green space planning (Jim and Chen 2003).
- Early European-style garden suburbs, such as those designed for Nanjing by the American architect Henry Murphy (Cody 2001).
- Modern low-density villa developments in Chinese cities, their low density ensuring their prestige, and catering for the growing luxury market; they are frequently gated communities or 'sealed residential communities' (Miao 2003)
- Industrial satellite town programs, e.g. Shanghai in the 1950s (Fung 1981)
- Other new towns, since the mid-1980s, established in their thousands (Ebanks and Cheng 1990)
- The Special Administrative Region of Hong Kong as an excellent example of efficient transport-land use integration around high rise new town development.
- The bestowing of the Garden city label on Chinese communities for their 'green improvements' by both national (Ministry of Construction) and international (International Federation of Parks and Recreation Administration) bodies.
- Major metropolitan new town programs, e.g. Beijing's eleven new suburban towns and Shanghai's 'One City with Nine Towns' plans. These communities are projected to absorb millions of people and

dampen congestion levels in the central city.

- Garden city style new town planning, such as Zhenjiang's Nanxu New Town Development, described as 'the first contemporary update of the 'Garden City' concept' (APA c2004) and Songjiang Garden City, the largest of the new Shanghai towns with a design by the Atkins Group inspired by popular British architecture and civic design traditions
- New eco-cities such as the Dongtan project near Shanghai designed by Arup.

## **GARDEN CITY/SUSTAINABILITY CRITERIA**

What to make of these more recent developments? They can be assessed on the basis of different criteria. But a vital one is how they shape up as sustainable communities. This is not the place for this analysis, but the kind of indicators that would be relevant might be showcased. The British Sustainable Communities Plan (2003) provides one relevant set of guidelines, contending that the major characteristics of a sustainable community are:

- A flourishing local economy to provide jobs and wealth
- Strong leadership to respond positively to change
- Effective engagement and participation by local people, groups and businesses
- A safe and healthy local environment with well-designed public and green space
- Sufficient size, scale, density and layout to support basic amenities
- Good public transport and other transport infrastructure
- Buildings that meet different needs and minimise resource use
- A well-integrated mix of decent homes of different types and tenures
- Good quality local public services
- A diverse, vibrant and creative local culture
- A "sense of place"
- Links with wider regional, national and international communities

But more specific garden city credentials can be invoked. What are the key aspects of this kind of planning? Here, we need to appreciate deeper, underlying values to the garden city concept: it is not just about trees and detached houses and master plans. At the New Garden City conference held in Tsukuba and Kobe, Japan in 2001, a raft of papers was presented on various aspects of classic and neo-garden city thought with special reference to the Asian realm. From these several recurring values were evident – that is multiple criteria that ideally should be met (Freestone 2002):

- Sustainability
- Greenness
- Organicism
- Flexibility
- Compactness
- Coexistence with rural environments
- Diversity

- Continuity
- Community development
- Social tenure
- Social justice
- Civic space
- Planned
- Design guidelines
- Co-partnerships
- Holism

Across such criteria, the preliminary impression is that new 'garden city' projects in the master planning community mould are strong on green and internal design credentials, but less innovative in terms of their community processes and integration into a wider regional structure. It doesn't help to be doctrinaire, but there are grounds for raising the bar a little, to stress not just greenness and order if these places are to really earn their title of garden city, but more fundamentally value adding values – social mix, affordability, live-work opportunities. Relatedly, Chinese satellite-new towns have had their critics (e.g. Yang, 2004) and a concern is that these communities should not accentuate processes of physical, functional and social segregation within the city and just pay 'lip service' to sustainable development principles.

## CONCLUSION

Does the garden city have a role in future urban development? There are massive constraints and challenges:

- Urban growth far outstripping urban changes wrought by the industrial revolution
- Urbanisation of the countryside via extended metropolitan region, challenging the very notion of regional design (Hack 2000)
- The emergence of the international Chinese city (Gaubatz 1999, Lin 2004)
- Concerns about the availability of building land (China News 2006)
- Generic difficulties in balancing objectives in arriving at feasible sustainable forms (Campbell 1996).

Against these scenarios, the post-industrial revolution-era garden city concept – now more than a century old - would seem to have no hope. But there are already things happening under the garden city label, which I have described. And as China, like other nations, strives to secure improvements in the environmental quality of life, garden city thought unavoidably will still play a role. Howard's vision after all stretched from neighborhood to nation – from major polycentric urban regions to small garden settlements. And he conceded flexibility of urban form. With no exact physical form for new garden city planning, we may just be talking about small 'demonstration' developments within the complex layered mosaic of the global Chinese urban region.

One speculation is whether the Shanghai approach of reproducing ersatz forms of non-indigenous architecture in its new towns has something going for it. While this would strike many westerners as being a neo-Disney approach to city building, by extension it holds the chance for garden city forms to be incorporated into new developments. Might Songjiang - the Shanghai British Garden City - have a Letchworth quarter with a village green or allotment garden? Indeed, why not think even bigger. If one country in the world could actually attempt the building of a complete contemporary version of Howard's social city, it is China.

I'm not being entirely facetious here, but rather striving for ways to seek a better fit between the

contemporary commodification of the garden city and the real thing in the face of the massive urbanisation challenge of the future. The beauty of Ebenezer Howard's peaceful path to real reform is that even though it no longer can change the world, it still has the seeds within it of both inspiration and practicality. As Hall, Hardy and Ward (2003) conclude:

Think what it would mean at the start of the 21<sup>st</sup> century, not just in Howard's England *but still more in nations grappling with city-building worldwide*, if they could somehow appropriate and build on the qualities Howard so brilliantly brought to the task: a utopian vision of an altogether better way of living together in cities, coupled with the practical common sense that would make it achievable. Perhaps the real legacy of *To-morrow* is to tell us that if we think that way, combining breadth of vision with hard practicality on mundane details, we can truly build an urban world almost beyond our present imaginations.

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