



The Concept Of Garden City And Its Relevancy in Modern City Planning Nuzhat Nabila ^{*,*}

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ABSTRACT

The main planning principles of Howard's Garden City were derived from the urge to prohibit environmental degradation and capitalism due to the migration of people from the country to the cities during the industrial revolution in 19th century England. The Garden City Movement was a revolutionary idea in the early 90s, leaving a legacy of planning principles and approaches. This article explores if Howard's Garden City principles are still relevant in contemporary city planning. This article describes the relevance of the garden city concept through case studies where the 'core' of planning policies and strategies aim to individual's enjoyment and prosperity, access to healthy and safe housing, services and employment, and various opportunities for socialising and participating in the community. Moreover, this article argues that Garden city's planning principles can be utilised with adjustments, fine-tuning and alteration required in different circumstances and contexts depending on the scale of the plot, block and suburb sizes in today's city planning.

1. Introduction

The Garden City movement is one of the remarkable urban planning methods initiated in 1898 by Ebenezer Howard in the United Kingdom. In the 19th century, due to the industrial revolution in England, the migration rate to cities increased rapidly, leading to environmental degradation and capitalism. Howard's intention behind the Garden City movement was to combine the benefits of the countryside environment and city environment while avoiding the disadvantages of both. This article explores the planning principles embedded in Howard's vision and plan of a Garden City. It explains the main elements comprising the physical form, structure and layout of Howard's Garden City.

Moreover, it explores if the Garden City principles are still visible in contemporary society and what kind of modification it needs. This article investigates Garden City's inheritance like The Garden city association, Britain's New Towns Act, The Neighbourhood unit by Clarence Perry; and connects them with the planning principles of Howard's Garden City. Discussing a few examples of cities where garden city principles have been expressed, this article discovers both positive and negative

aspects of Howard's Garden city movement and suggests incorporating the principles in modern city planning.

2. Methodology

This article compares the case studies of present-day cities with Howard's original garden city concept using a qualitative approach method. At first, the literature review section explores Howard's vision about Garden city by examining his book 'Garden Cities of To-morrow', published in 1902, where Ebenezer Howard explained the planning principles and the main elements of the physical form, structure and layout of Garden City. With this knowledge about the Garden city concept, this article proceeds to evaluate several approaches that appeared as the inheritance of the Garden City Movement. Four case studies- Canberra Suburbs, Australia; Letchworth, United Kingdom; Welwyn, United Kingdom and Radburn, New Jersey, USA; have been examined to recognize how the garden city concept has been applied in their planning. By exploring the opportunities and challenges to apply garden city concepts in these cities, the article decides whether the garden city concept is still relevant in contemporary planning principles.

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3. Literature review

3.1. Planning principles of Howard's Garden City

Howard's main objective was to break the centralisation in towns and rescuing the natural environment (ACT Planning and Land Authority, 2008). The primary planning principles embedded in Howard's vision and plan are:

- The Advantage of both City and Country

In Howard's 'The Three Magnets' diagram, he identified the individual favourable components of both country and town lifestyles and merged them into a third alternative 'Town-Country' magnet. In this 'Town-country', all benefits from the city-life can be enjoyed, such as a higher chance of employment, high wages, and better amenities, yet preserving the freshness of the healthy and beautiful natural environment of the country-life (Figure 01).

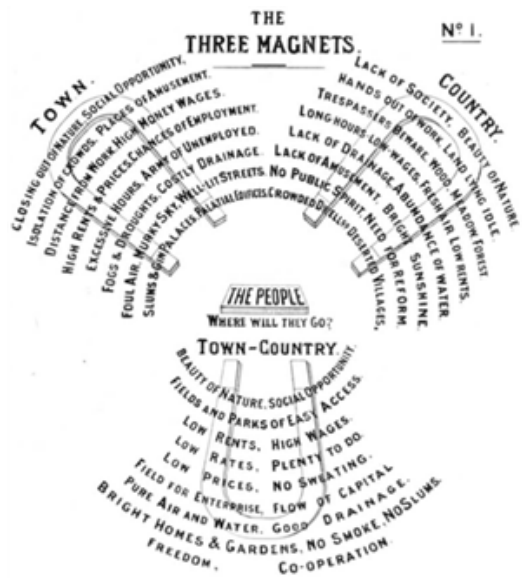


Figure 01 - The Three Magnets. Plate No. 1 from Ebenezer Howard's Garden Cities of Tomorrow. (Howard, 1902)

- Raise the Standard of life
 Securing healthier surroundings and regular employment in the 'Town-Country' magnet, Howard promotes the healthy, natural, and economic lives of all the factory workers of various grades, combining the best advantages of cooperation, freedom, high wages, and low rents.
- Collective ownership
 Howard's Garden City introduced collective ownership of lands instead of private individuals, which ensures

benefiting the whole community. People from different classes provide their capital and effort to develop a healthy natural and economic city.

- Permanent belt of agricultural land
 A Permanent green belt is provided around the city to control the growth, ensuring a healthy environment.

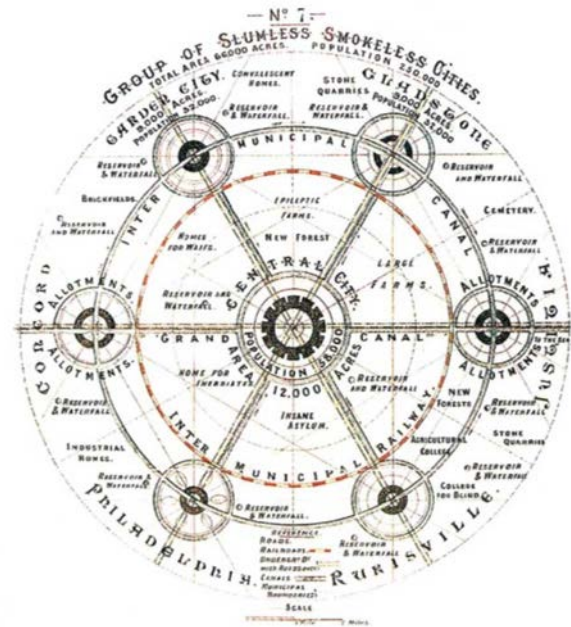


Figure 02 - Howard's diagram of a series of satellite garden cities limiting the growth of each and connecting to the Central city (Howard, 1902)

- Limiting the growth
 Providing the green belt limits the growth of 32,000 people. Despite inhabitants' good intention of restricting the growth, the Garden city is predicted to grow. Therefore, the principle is stated that after reaching the population of 32,000, another city will be established at proximity beyond its own zone accessible with rapid transportation representing a similar identity as one community. The cluster of cities is grouped around a Central City and will always preserve a green belt surrounding the cities (Figure 02) (Howard, 1902).
- Rapid Railway Transit
 Easy accessibility and walkability are one of the major principles of Howard's Garden City. The distance between one town to its most distant neighbour is only ten miles which could be accomplished by inter-municipal railway at the outer ring in twelve minutes. Electric tramways in the high roads serve between the towns. Moreover, a railway system directly to Central City from each town reaches in five minutes (Howard, 1902).

3.2. Main elements of the physical form, structure and layout of Howard's Garden City

A few of the fundamental structures of Howard's Garden City are:

- Concentric form
The concentric rings system in the Garden City

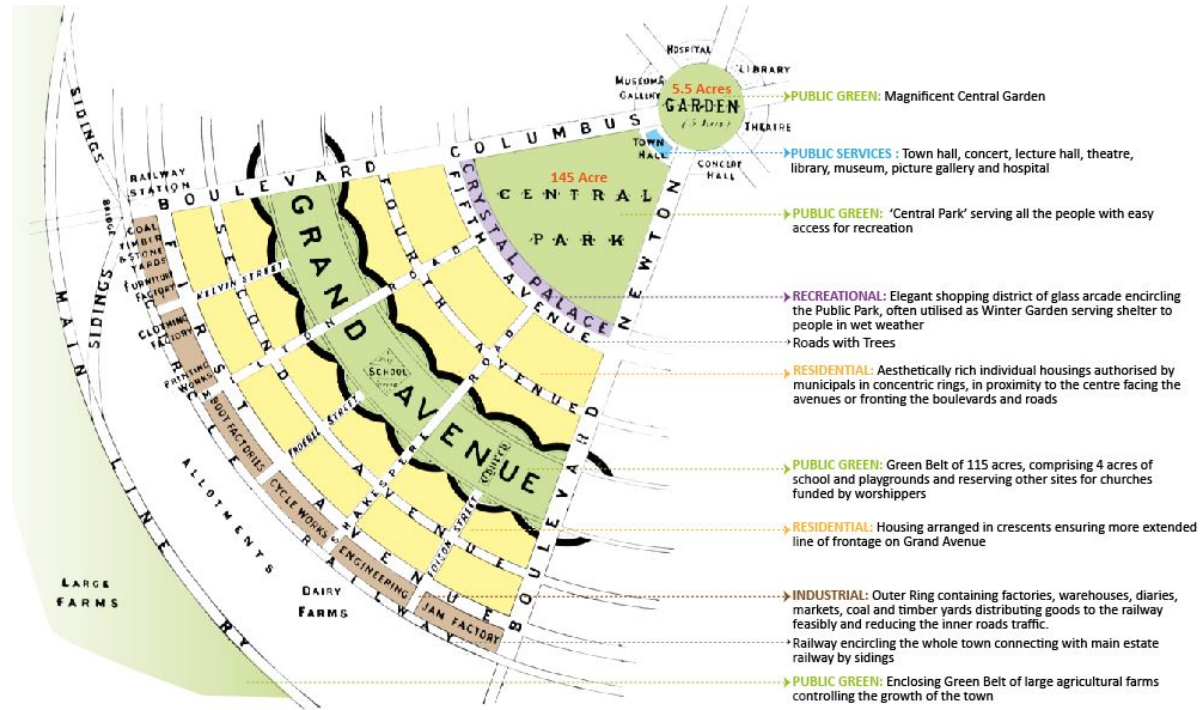


Figure 03 - Diagram of one ward of the Garden City. "Ward and Centre." Plate No. 3 from Ebenezer Howard's Garden Cities of Tomorrow. (Source: Howard, 1902; Edited by Author)

- Zoning and Land Use Patterns
Industrial, residential, recreational and green spaces are segregated with the avenues which secure the environment quality (Figure 03). The garden city is

Open space Amenities

Health benefits of natural environments are guaranteed by ample green space provided in a hierarchy of parks such as Central Park and Grand Avenue and finally enclose it with a permanent agricultural land belt (Figure 03).

- Individuality in architecture prevailing Sense of Community

Howard encouraged individual taste and preference at most for the architectural quality of the buildings. In

The legacies of the Garden City Movement

While intervening with the Garden City movement's idea in practice, Howard encountered financial difficulties, land unavailability, and the government's unwillingness to get involved. Following are a few approaches that shaped

ensures equal accessibility for all residents of the city.

- Hierarchy of roads

The 120 feet wide six magnificent boulevards cover the distance from the centre to the circumference of 1240 yards and divide the city into six equal parts or wards. These boulevards are interconnected via internal streets, which are also utilised to separate the zoning.

equally divided into six wards which ensures serving all the residents alike.

- parallel, an average size of 20 feet x130 feet for each lot is prescribed to ensure a consistent level of housing amenities like sanitary arrangements (Howard, 1902).

The Town-Country concept establishes access to safe and pleasant housing representing a town lifestyle and social interaction.

At the same time, it appreciates the beauty of nature characterising the country lifestyle, which can encourage people to migrate spontaneously, promoting decentralisation in towns.

the inheritance of the Garden City Movement:

4.1 The Garden City Association

Howard founded the Garden City Association, renamed in 1941 as the 'Town and Country Planning Association' or TCPA, which created the First Garden

City Ltd and initiated the first Garden Cities in Letchworth and Welwyn (Hardy, 1999). The Association campaigned through the inter-war period for new settlements and a revolution in housing standards (Town and Country Planning Association).

4.2 Regional Scale

F.J. Osborn, the leader and successor of the Association’s campaign, accelerated the Garden City movement into regional planning. With Osborn’s persuasion for government’s involvement, The Royal Commission, formed in 1937, produced the Barlow report investigating the industrial population’s distribution (Hardy, 1999).

4.3 New Towns

The congestion and annihilation accompanying World War I enormously stimulated the garden-city movements worldwide, especially in Great Britain. Brian’s New

Towns Act (1946) led to the development of over a dozen new communities based on Howard’s idea (Figure 04), e.g.-Newcastle, UK (Jones, 2018). Osborn proposed the comprehensive system of a nationwide network of new towns with a surrounding green belt campaigning against the high rise and high-density housing (Hardy, 1999).

4.4 International Scale

In 1976, when the United Nations held a leading conference on human settlements in Vancouver, the TCPA held an exhibition and seminars at a parallel forum for non-governmental organisations. Thus they became a founding member of the UN Committee on human settlements, which accelerated the Garden City Association’s scale to the international level (Hardy, 1999).

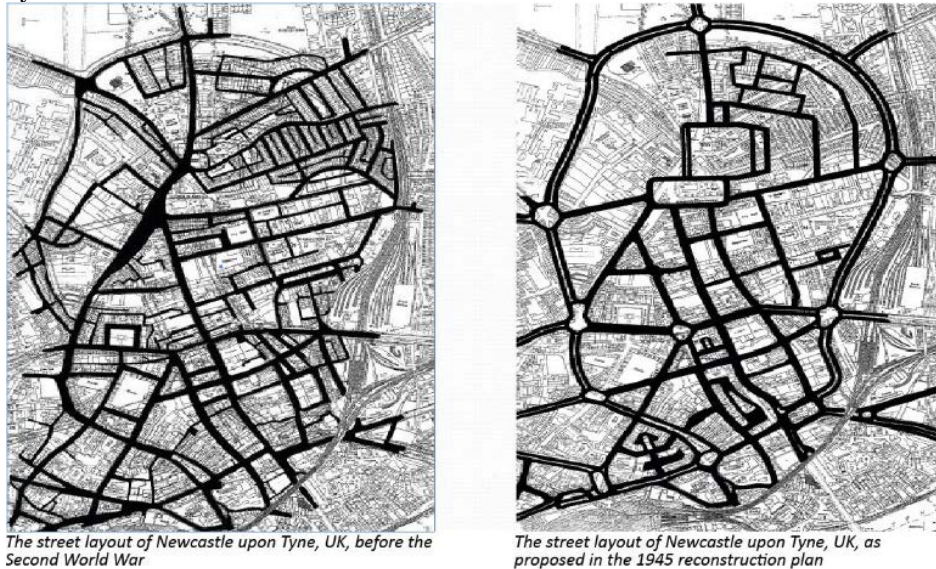


Figure 04: New Town Structure Planning; (Source: Jones, 2018)

4.5 The Neighbourhood Unit

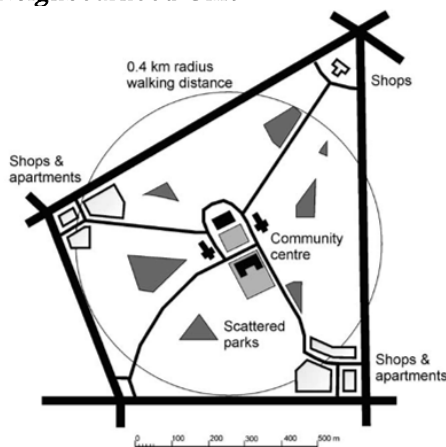


Figure 5 - The Neighbourhood unit by Clarence Perry (Jones, 2018)

The Neighbourhood unit by Clarence Perry, 1929 demonstrates the influence of the Garden City Movement with features like centring the school, placing arterial streets along the perimeter, designing internal roads in the hierarchy, restricting local shopping areas to the perimeter and dedicating at least 10% of the neighbourhood land area to parks and open space (Figure 05) (Jones, 2018).

4. The first Garden Cities

4.1. Letchworth, United Kingdom

In 1904, with the notion of providing better and affordable housing to the working class, Raymond Unwin, with his partner Barry Parker planned the first garden city of the Letchworth in Hertfordshire, England, the United Kingdom, for 35,000 people where they turned

Howard's vision into three-dimensional reality. They planned the town in the centre with Howard's substantial agricultural greenbelt of 1300 acres enclosing the city, albeit the design was organic instead of Howard's symmetric design (Figure 06) (Hardy, 1999).

Although many viewed Letchworth as a success, it did not promptly influence government investment into garden cities' next line.

4.2. Radburn, New Jersey, USA

Radburn Garden City, the first American New Town, was founded in 1928 to serve the complex modern life, still providing the amenities of open space, community service and economic viability. The basic layout involved cluster grouping, the 'super-block' concept similar to Port Sunlight Garden City principle, interior parkland, and vehicular and pedestrian traffic separation. Only a tiny portion of Radburn was completed before the Great Depression stalled development (Birch, 1980).



Figure 6 - Letchworth Garden City in Hertfordshire, England, has a compact town centre and is still adjacent to the scenic countryside after more than 10 years (Source: DITTMAR, 2017)

5. Garden city concept in the modern time

Since the 1980s, TCPA has actively campaigned for the new generation of Garden Cities to address poverty and climate change challenges. Sir Peter Hall and Colin Ward portrayed in their book that people still prefer to live in settlements on a human scale, but with the advantage of access to a wide range of high-level services. They re-expressed Howard's Garden City in the form of several development corridors with clusters of settlements, all served by high-speed rail and other transport links, and with protected landscapes alongside (Hardy, 1999).

5.1. Welwyn, United Kingdom

The second Garden City Welwyn was subsequently designated as a New Town under the 1946 New Towns Act. Welwyn portrays Howard's principle values such as -

separate factory sites similar to Letchworth; festival hall for cultural activities aiming to community development; beautiful mixed-tenure settlements with scenic gardens that are affordable for different income people; a variety of employment opportunities within easy commuting distance of homes; strong local cultural, recreational and shopping amenities in walking distance; and integrated and accessible rapid transport and stable political system.

However, unlike Garden City's main principle, Welwyn could not become self-sustaining because it was only 20 miles from London. (Gardencitiesinstitute.com, 2018) (Figure 07).



Figure 07 - The Garden City of Welwyn at present (Source: Morgan, 2017)

5.2. Canberra Suburbs, Australia

The design and layout of the existing Canberra suburbs are underpinned by the spatial relationships between three key physical elements-the street, the block and the dwelling, where the street is the macro element and the dwelling being the micro element. ACT Government introduced the Garden City provisions in the planning process of Canberra, addressing the requirement of healthy dwellings in the suburban setting in 2003.

- The Street

In the garden city movement, the street has been considered not only as vehicular access but also as a place of the public realm for social gathering and a parameter of defining the suburb's character. In the suburbs of Canberra, alongside with the street, the land between the building lines on either side of the street, setbacks, fencing, landscaping, driveway, verges, utility services- all these visible amenities control the environmental quality of the suburbs providing pleasant housings for residents (ACT Planning and Land Authority, 2008).

- The Block

In the suburbs of Canberra, ensuring the environmental quality of individual block subsequently promotes a healthy environment of the suburb. The front garden defining the property line and the backyard garden influence the appearance of the building in the street and contribute to a healthy environment for the dwellers. The utilisation of the porches, terraces and front gardens

regulates the relationship with the neighbours, promoting community participation as the Garden City principle depicts (ACT Planning and Land Authority, 2008).

- The Dwelling

The Garden city values are underpinned in maintaining economic, social, environmental and cultural benefits by providing safe, pleasant dwellings whilst ensuring social interaction and participation of the community.

By controlling scale, materials, texture, articulation, roof pitch, dwelling height, and providing appropriate landscape design and solar efficiency, the appreciation of beautiful natural environment is established (ACT Planning and Land Authority, 2008).

6. Discussion and findings

It is evident from the case study of Canberra suburbs that similar to Garden City's objective, Canberra's early planning aimed to constitute a spacious healthy city with enormous streets, generous house blocks with picturesque green parks and open lands. Walter Burley Griffin's 1912 plan for Canberra emphasised on great connectivity with workplace and parks, and public participation, which is also one of the objectives of Howard's Garden City.

From the post-world war era to the 1990's urban intensification era, the planning of Canberra's suburbs included large private open spaces at the front and back of the dwellings, good street access and proximity to civic. The garden city principle of 'town-country' magnet is visible in the planning of Canberra through portraying the advantages of town lifestyle with great housing opportunity, social interaction and the benefits of the country lifestyle providing a beautiful natural setting for the street, blocks and dwellings. The fundamental value underpinned in the design principles is achieving human well-being in a visually pleasing landscape (ACT Planning and Land Authority, 2008). Therefore, it can be said as a modern city planning Canberra suburbs successfully behold the spirit of Howard's Garden City concept.

The Garden City Movement has influenced many localities in the United Kingdom, Ireland, North America, Australia, New Zealand, Europe, Asia and Africa. For instance, in 1925, architect Reginald Hammond designed a garden suburb on contested Maori Land at Orakei, Auckland, New Zealand, providing broad avenues along the side's ridges, ample public amenities and generous provision for parks. The civic centre and a new university were designed at the centre as 'city-beautiful' elements (Schrader, 2015). However, similarly to the case study of Welwyn, Uk, many of these examples are not self-sustaining as per Garden City's principle. Here, One significant difference with the original garden city concept will be the high density and space consumption which is a challenge in modern-day city planning (Duany, Roberts, & Tallen, 2014; Hall, 2014; Saffie & Kohn, 1997). Therefore,

this article suggests that rather than implying the Garden city concept in physical form, structure and layout, it is advisable to follow the essence of the concept to facilitate environmental and social benefits for the dwellers as visible in the planning of Canberra suburbs.

7. Conclusion

All things considered, it can be said that Howard's Garden City Principles are still relevant in contemporary society. The garden city model has inspired modern city planning to establish a balance of social, environmental and economic prosperity. However, the first Garden cities were often criticised for damaging the economy, being destructive of nature's beauty, and being inconvenient. According to A. Trystan Edwards, Garden cities lead to the countryside's desecration by recreating countryside houses that could spread themselves (Edwards, 1914). In the modern time, the garden city values require incorporating more challenges such as shortage of land, active population, the highly mobile workforce that demands flexibility in the working regimes, greater personal liquidity, environmental costs that come with climate change, and high-density population. While Howard's principle regarding the environmental factors and social connection are still relevant in the planning process, principles like collective ownership of land or limiting the growth is quite unimaginable. Although it is difficult to anticipate changes in future urban planning, the planners can indeed work with the strengths of the Garden city concept in an adaptive way.

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