

APPLYING THE GARDEN CITY CONCEPT TO HISTORIC GUANAJUATO

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Revisiting the Garden City Concept

The rapid development of population centers has caused the problem of lack of green areas in urban contexts. As a contribution to the search for urban sustainability, planners are resuming and applying the concept of Garden City, developed by Ebenezer Howard at the end of the 19th century. Emphasizing the distribution and function of green spaces as a main component in the planning of land use, the original idea of Garden City seeks to provide a safe, environmentally healthy and comfortable place for urban residents that allows interaction between them. Similarly, when considering sufficient open space, an easily legible land use distribution is sought, with an integrated road and transport system that connects residential areas with other land uses in the urban context. Some of Howard's ideas were put into practice, for example, in the cities of Letchworth and Welwyn, located near London, in England from 1968. However, the concept itself becomes more defined and clear until the 1980s. This research project will analyze the feasibility of implementing the concept of Garden City in Guanajuato, Gto., Mexico.

Abstract

First formally established as a mining outpost by the Spanish in 1548, the city of Guanajuato draws much of its façade from this era. With gardens scattered through the historic region, Guanajuato may appear to be a great candidate for the application of the Garden City Concept. Founded in 1898 by Sir Ebenezer Howard, the Garden City Concept attempts to increase visual quality, green space, and functionality of the areas in which it is applied. The purpose of the garden city is to combine the best aspects of country and urban living; despite the name, the focus of the Garden City Concept (GCC) is not only maximizing the amount of green space in a city. The focus of the GCC is creating an ideal residential environment by cultivating enterprise, convenience, comfort, and community through the use of open, green space. The city of Guanajuato's hoary infrastructure and historic protections makes achieving this 20th century idyllic city vision nearly impossible. However, the entire Garden City Concept does not have to be applied, inspiration from the theoretical model can help to improve Guanajuato

Keywords

garden city, urban planning, sustainable cities

INTRODUCTION

First formally established as a mining outpost by the Spanish in 1548, the city of Guanajuato draws much of its façade from this era. Established as a World Heritage Site by The United Nations Educational, Scientific and Cultural Organization (UNESCO) in 1988 ^[1], this area is now resistant to much development. With gardens scattered through the historic region, Guanajuato may appear to be a great candidate for the application of the Garden City Concept.

The Garden City Concept attempts to increase visual quality, green space, and functionality of the areas in which it is applied. This paper aims to explore the viability of applying the Garden City concept to the UNESCO World Heritage Site of Guanajuato through exploring the characteristics of a garden city and previous applications of the concept in Singapore and Putrajaya, Malaysia.

[1] UNESCO World Heritage Centre. (n.d.). Historic Town of Guanajuato and Adjacent Mines. Retrieved from <https://whc.unesco.org/en/list/482>

MATERIALS AND METHODS

In 1898 Sir Ebenezer Howard published *Garden Cities of To-Morrow: A Peaceful Path to Real Reform*—later revised in 1902 and published as *Garden Cities of To-Morrow*—therefore founding the garden city movement.

The purpose of a garden city is to combine the best aspects of country and urban living: the low costs, beauty of nature, clean air, water, and gardens of the former, and the high wages, good drainage, flow of capital, and bright homes of the latter.

Howard proposed an optimal town size of 58,00 for the “central city”, with surrounding towns of about 30,00 people. The cities would have a layout of concentric, tree-lined avenues and each city is separated by a “green belt”—area of agricultural land. Furthermore, there would be a central garden and the cities would also be divided into six wards partitioned by six boulevards that runs radially from the central garden. The gardens of Howard’s garden city were intended to coincide with relevant community locations, such as government offices. Train stations and industrial land would lay on the periphery of the city before the green belt to relieve the city streets of congested transportation while still connecting it with other cities.

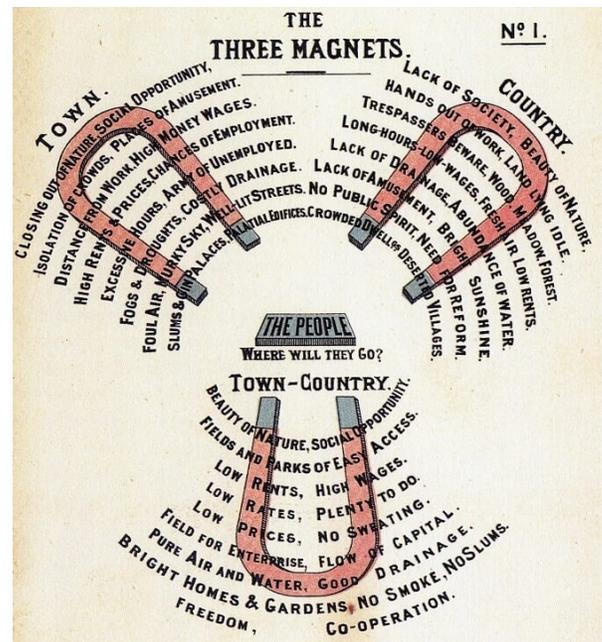


Figure 1. Diagram of Ebenezer Howard’s “Three-Magnets” theory, which attempts to convey the appeal of living in a town vs. the country and how a garden city (or town country) combines the best features.

Source: Howard, 1902

Despite the name, the focus of the Garden City Concept (GCC) is not only maximizing the amount of green space in a city; the focus of the GCC is creating an ideal residential environment by cultivating enterprise, convenience, comfort, and community through the use of open, green space.

A specific example of application of the GCC is Singapore; Singapore is often considered a garden city for obvious reasons, i.e. gardens occupy 47 percent of all land in the city-state. However, the city-state can also be considered a garden city for its ability to foster the strong sense of community that Howard portrayed in his model. As previously mentioned, Sir Ebenezer Howard intended to combine the best qualities of living in a town and in the country. One way the Singaporean government encourages these qualities is by creating affordable housing through its extensive land ownership: more than 80% of the population lives in government housing, and 95% percent of those spaces are sold to citizens on long-term leases allowing them their own apartments. Similarly, the public housing offered in Singapore is often built to promote community. One example of this is the Skyville apartment complex, a stylish high-rise apartment building that contains 12 “villages” with 80 apartments in each. Every village shares a “sky garden”. This implementation of the GCC in an isolated building is mirrored throughout the city, expressing an city-wide attitude toward community building and utilizing green space to do so.

The city of Putrajaya in Malaysia is another example of how garden city principles can be applied. The Putrajaya City Master Plan depicts a city where all services and conveniences are within walking distance—a quarter of a mile—of its residents. The size difference between Howard’s envisioned city and Putrajaya is considerable; the ideal garden city would be 6000 acres—with 1000 designated for urban life and the rest for agriculture—and Putrajaya, in contrast, occupies around 12,000 acres. As Howard designed it, the garden city would have a limited population in order to create accessibility to the city’s amenities, citizens, and work. Putrajaya was built to accommodate approximately half a million people and occupies twice the amount of land, but the city imitates the same convenience that would be present in a model garden city.

RESULTS AND DISCUSSION

The historical nature of Guanajuato contributes greatly to the lack of open space and poor functioning of the city. With UNESCO regulations encumbering its ability to adapt to the modern world, the city struggles to operate with its now anachronistic Spanish colonial era veneer dominating its function.

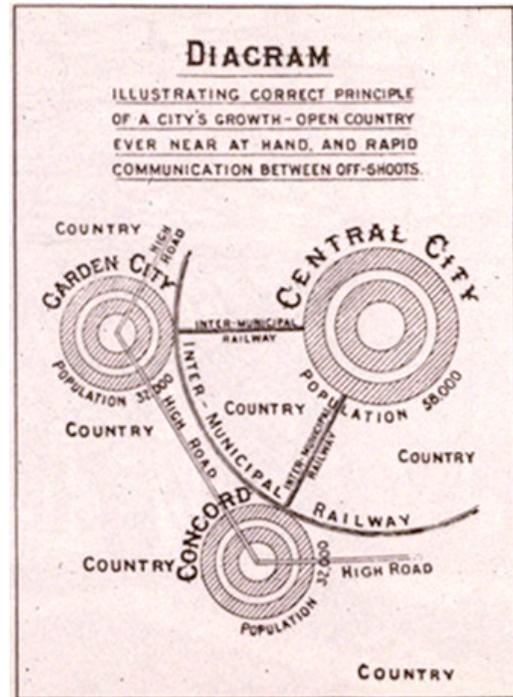


Figure 2. Diagram of Ebenezer Howard’s Garden City Concept depicting the transportation connection from the “Central City” to other smaller garden cities
Source: Howard, 1902

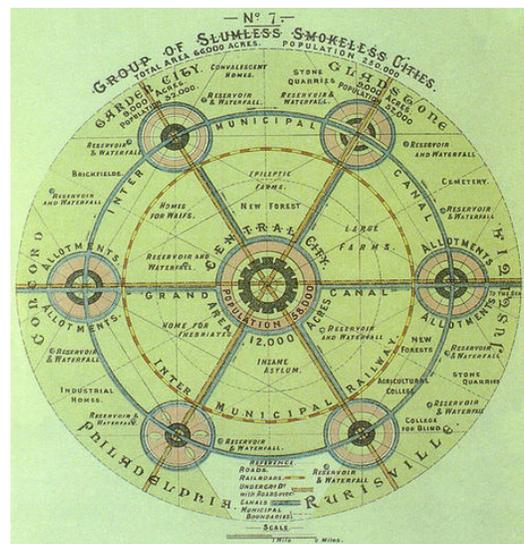


Figure 3. Diagram of the Radial design of the Garden City Concept
Source: Howard, 1902

Considering, the majority of garden cities were planned to have a population around 30,000 people, the population of the UNESCO World Heritage Zone of Guanajuato is appropriate for Howard's vision; as seen in Table 1, the historic site of Guanajuato has a population of approximately 30,000. Contrastingly, the land use of the UNESCO World Heritage Zones of Guanajuato is predominantly occupied by urban land and streets, which comprise 75.25% of the total land, leaving a scarcity of open space. The overall surface area of the UNESCO World Heritage site is approximately 1562 acres, making the population density also not well suited for the idyllic garden city.

While this site might not be able to transform into Sir Ebenezer Howard's vision of a garden city, there are many characteristics of the area that already reflect garden city concepts and there is also some space for more concepts to be applied. The historic center of the city of Guanajuato may be short on open space, but that is not the case with garden space. The UNESCO World Heritage Zone area of Guanajuato has many gardens that enrich the cultural fabric of the city.

One specific application of the GCC in Guanajuato is using gardens to highlight important buildings or areas. For example, the Presa de la Olla zone is home to numerous government offices of the State of Guanajuato, and many of these offices are well accentuated by gardens. Likewise, el Jardín de la Unión stands as the central garden to historic Guanajuato and is at the center of much of Guanajuato's attractions, like the famed Teatro Juárez. Another way the UNESCO World Heritage Site of Guanajuato exemplifies garden city characteristics is the small size of the city, which makes many of the city's amenities within walking distance, despite the many hills.

The room for further implementation of the GCC comes from the area's unused urban land. Around 22.76% of Guanajuato's urban land is unused which leaves room for creation of open and green space to further the city's garden city characteristics. However, this development possibility is made particularly difficult by UNESCO regulations.

CONCLUSIONS

Sir Ebenezer Howard's Garden City Concept was developed to create a perfect modern city; these cities were imagined to be scenic and functional. While the garden city is just more than increasing the number of trees in a city, it still requires plenty of open space. The city of Guanajuato's hoary infrastructure and historic protections makes achieving this 20th century idyllic city vision nearly impossible. However, Guanajuato already exhibits attributes of this concept and has space for more to be applied. While the entire Garden City Concept does not have to be applied, inspiration from the theoretical model can help to improve Guanajuato.

Table 1: Land Use and Urban Land Use in Guanajuato World Heritage Zones. Source: Silva, 2018

ZONE	SURFACE (Has)	POPULATION (inhabitants)	LAND USE (Has)			URBAN LAND USE (Has)			
			Urban	Non-Urban	Street	Housing	Facilities	Non-Used	Others
POE	111.84	4,279	78.01 (69.74%)	21.61 (19.32%)	12.22 (10.93%)	30.83 (39.53%)	10.82 (13.87%)	33.48 (42.92%)	2.87 (3.68%)
PAS	57.06	6,287	47.30 (82.90%)	1.96 (3.4%)	7.79 (13.65%)	30.81 (65.12%)	8.09 (17.12%)	6.11 (12.92%)	2.29 (4.85%)
ALA	87.04	3,199	33.00 (37.91%)	47.10 (54.12%)	6.92 (7.96%)	25.53 (77.39%)	0.89 (2.71%)	0.58 (1.78%)	6.0 (18.18%)
ZCE	34.69	3,076	28.13 (81.09%)	0 (0%)	6.5 (18.91%)	14.82 (52.69%)	5.51 (19.62%)	3.93 (13.95%)	3.86 (13.74%)
MCG	37.58	3,623	31.41 (83.60%)	0 (0%)	6.16 (16.40%)	16.56 (52.71%)	10.82 (34.46%)	3.32 (10.57%)	0.70 (2.26%)
CMS	66.94	3,353	45.51 (66.49%)	14.64 (21.88%)	7.78 (11.63%)	16.12 (36.23%)	5.34 (12.02%)	15.91 (35.75%)	7.12 (16%)
VAL	184.77	1,394	77.07 (41.72%)	71.22 (38.54%)	36.47 (19.74%)	18.13 (23.53%)	19.73 (25.60%)	15.62 (20.26%)	23.59 (30.61%)
SIA	52.56	3,865	42.76 (81.35%)	0 (0%)	9.80 (18.65%)	21.32 (49.87%)	6.35 (14.86%)	8.27 (19.34%)	6.80 (15.92%)
TOTAL	632.48	29,076	383.19 (60.58%)	156.53 (24.75%)	93.64 (14.67%)	174.12 (45.44%)	67.55 (17.63%)	87.22 (22.76%)	53.23 (14.17%)

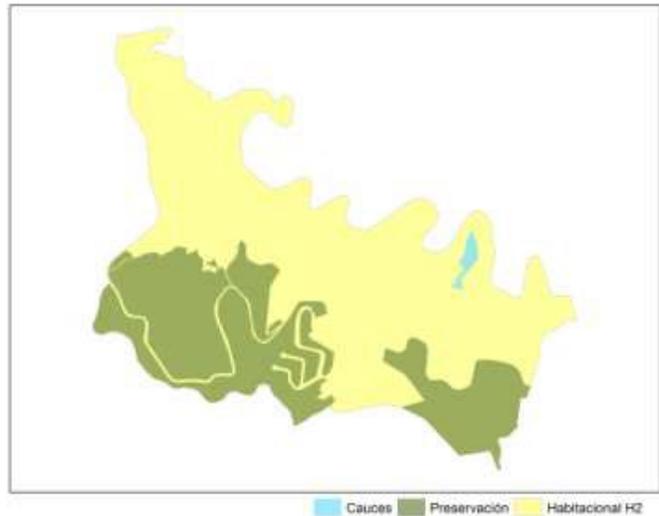


Figure 4. Land use map of the Presa de la Olla (POE) zone. Source: Silva, 2018

APPRECIATIONS

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